



INSIDE SMITHFIELD'S TOXIC PIG FARMS

A DxE investigation at Smithfield Foods finds animal cruelty, suffering, carcinogenic drugs, air pollution, and death

EXECUTIVE SUMMARY

An investigatory team with Direct Action Everywhere (DxE), an international grassroots animal rights network, spent nearly a year (early 2017 into 2018) [investigating Smithfield Foods pig farms](#) in North Carolina and found hundreds of animals suffering from what appeared to be the potentially deadly Greasy Pig Disease (*Staphylococcus hyicus*), entire rooms filled with pharmaceuticals including antibiotics key to human health, and sows confined in gestation crates only slightly bigger than each pig's body despite Smithfield's announcement in [January 2018](#) that it had completely eliminated the cruelly confining gestation crates from its farms.

Smithfield, the largest pork producer in the United States and in the world, [killed 27 million hogs](#) in 2006; the company is now owned by China's WH Group. Smithfield annually slaughters 25% of the pigs raised for food in the U.S. and its pork products are sold at Walmart, Costco, Target, Sam's Club, Bel Air, Food Maxx, Vons, Ralphs, Safeway and other retailers. Additionally, Smithfield bought Clougherty Packing PLC in 2016, which produces the Los Angeles Dodgers' famous Dodger Dogs. Smithfield's brands include Eckrich®, Nathan's Famous®,

Farmland®, Armour®, Farmer John®, Kretschmar®, John Morrell®, Cook's®, Gwaltney®, Carando®, Margherita®, Curly's®, Healthy Ones®, Morliny®, Krakus® and Berlinki®.

At the farms investigated, DxE found animal abuse and air pollution. When a journalist for Vox contacted Smithfield during his reporting of the DxE investigation, a Smithfield veterinarian confirmed to him that the company doses pigs with [carbadox](#), a carcinogenic antibiotic that has been [banned](#) in Europe and is currently under FDA scrutiny.

DxE rescued one pig from a Smithfield farm, whom the investigators named Lauri, who was sick with [Greasy Pig Disease](#), according to the vet who examined her.

Additionally, there was a severely ill four day old pig who died within a few hours of being rescued; a post mortem examination by a vet found that the pig had a cranial fracture.

Typically in the pork industry, workers "thump" sick, or small piglets in order to kill them. [Thumping means smashing their skulls against a wall.](#)

In addition to being the biggest producer of pigs in North Carolina, Smithfield is also the biggest producer of pig manure in the state, which in turn has caused [massive air and water pollution](#) there. That pollution has been tied to various illnesses in humans, fish and other animals in North Carolina.

In the state, a person who removes a sick pig from a farm without the owner's permission can be charged with both larceny, a Class H felony, and with breaking/entering, also a Class H felony. Each Class H felony conviction carries a [maximum sentence of 39 months](#) in jail if you don't have prior convictions. DxE co-founder and lead investigator Wayne Hsiung has been charged with



Smithfield pigs still in cruel gestation crates in 2018. Photo by DxE

two Class H felony crimes and a misdemeanor for removing a sick goat from a North Carolina farm in early 2018.

DxE co-founder and lead investigator Wayne Hsiung has been charged with two Class H felony crimes and a misdemeanor for removing a sick goat from a North Carolina farm in early 2018. He has also been charged with multiple felonies for removing sick or injured pigs and turkeys from Smithfield and Norbest farms in Utah in 2017, and for simply walking onto a farm in Petaluma, California in the fall of 2018.

Other DxE investigators have been charged with multiple felonies for investigating a Smithfield pig farm and a Norbest turkey farm; if convicted, the investigators could face decades in prison.

Additionally, North Carolina is an “ag gag” state, which means the DxE investigators who researched the Smithfield farms could be subject to penalties (including a fine of up to \$5000 a day) for going on the property without Smithfield’s permission to take pictures or video, and publicizing the results of their investigation.

DxE investigators believe the charges against them are meant [to intimidate animal rights activists](#) and cause them to stop investigating farms and exposing the animal abuse they find there.

“These charges raise serious questions about whether prosecutors are attempting to unconstitutionally punish the activists for filming, documenting, and exposing abuses by the agricultural

industry that dominates the state, and particularly whether the prosecutors have acted with improper motives because of their own extensive ties to that industry,” [wrote Pulitzer Prize-winning journalist Glenn Greenwald in *The Intercept*](#).

DxE’s findings make it clear that action is needed. Industrialized animal agriculture violates Americans’ values and threatens families, yet the industry is not just unregulated but receives billions in government subsidies. Nearly [three dozen investigations](#) of farms by DxE during the past five years have found the same kinds of animal abuse, release of toxins into the air and water, and use of antibiotics crucial to human health.



Farrowing crates as brutally confining as gestation crates. Photo by DxE



Pigs who are intelligent and social suffer extreme confinement at Smithfield. Photo by DxE

WHAT WE FOUND

DxE made numerous visits to Smithfield pig farms in North Carolina during 2017 and 2018, entering nearly a dozen different sheds during the visits. DxE investigators wore sanitary coveralls, covers for their shoes and sanitary disposable gloves whenever they entered the farms.

During 2017 and early 2018 [investigators found](#):

- Hundreds of pigs who appeared to be suffering from Greasy Pig Disease, which can be [resistant to antibiotics](#).
- Dead piglets rotting in crates with live piglets.
- Pigs with infected cysts and wounds.
- Pigs suffering from stress and psychological torment.
- Sows with bloody, damaged nipples such that their piglets were nursing on blood and pus.
- Plastic bags filled with clipped-off pig testicles and tails. (Smithfield veterinarian Mary Battrell has confirmed that the pigs are castrated and their tails clipped with no anesthetic.)

And investigators found sows confined in small (6.6 feet by 2 feet) crates which have been described as “[one of the cruelest forms of confinement](#) devised by humankind” by Ian Duncan, Emeritus Chair in Animal Welfare at the University of Guelph. These so-called gestation crates do not allow pigs to turn around; confinement in the crates causes some pigs to exhibit stereotypies (repeated movements having no purpose) such as head wagging and chewing on the metal bars in front of them. The sows



Infected wounds are common at Smithfield farms. Photo by DxE

stand on slatted floors and the urine and feces falls to pits below them. The sows and piglets are subject to noxious fumes from the waste, which cause respiratory problems.

Sows spend about half of their short two-year lives in these crates; the other half is spent in miserable, crowded concrete pens.

“Sows are intelligent, inquisitive animals who naturally spend their time rooting, foraging and exploring their environment,” Duncan continued in a [statement](#) he provided to the Humane Society of the United States (HSUS) in October 2012. “When kept in extensive conditions, sows engage in a wide variety of behaviour and lead a

rich social life. All of this is completely denied them by gestation crates and leads to enormous frustration.”

Donald M. Broom, Professor of Animal Welfare at the University of Cambridge in England, [told HSUS](#) that keeping a pig in a gestation crate “is much worse than severely beating an animal and most laboratory experiments.”

In January 2007, [Smithfield announced](#) in a press release that it was “beginning the process of phasing out individual gestation stalls at all of its company-owned sow farms and replacing them with pens—or group housing—over the next 10 years.” The company also said it would “work with its contract growers regarding system conversion.”

Eleven years later, in January 2018, the company [informed the world](#) that it had met their 2007 goal. Smithfield stated in a press release that it had “fulfilled its industry-leading commitment of providing group housing systems for pregnant sows on all company-owned farms in the United States.”

Yet DxE found that sows were still confined in gestation crates on the Smithfield-owned farms they visited. Additionally, at Smithfield, DxE found pigs with their newly born piglets confined in farrowing crates, which are only slightly less restrictive.

Lauri

At one Smithfield farm, DxE rescued a piglet, whom the investigators named Lauri, who was sick with Greasy Pig Disease (*Staphylococcus hyicus*), according to the vet who examined her. Greasy Pig Disease can be [resistant to antibiotics](#). Lauri had “moderate-severe excoriation and scabbing over face,” the vet wrote in a medical exam report. The *S. hyicus* bacterium produces toxins which are absorbed into the system and damage the liver and kidneys, according to [The Pig Site](#). Seriously affected piglets will die. The vet treated the piglet with the antibiotic Excede (ceftiofur).

Additionally, there was a severely ill four day old pig who died within a few hours of being rescued; a post mortem examination by a vet found that the pig had a cranial fracture. Typically in the pork industry, workers “thump” sick or small piglets in order to kill them. [Thumping means smashing their skulls against a wall.](#)



DxE investigator rescues sick piglet. Photo by DxE



Rescued piglet is treated to a banana. Photo by DxE

PIG SENTIENCE

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 or 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. 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 Smithfield sheds. As miserable as it was for DxE investigators to experience the noxious air at the Smithfield facilities, it was significantly more miserable for the pigs. 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 the Smithfield farms DxE investigated, there is no escape. All the pigs were filthy.

A PHARMACEUTICAL BUFFET

DxE investigators found entire rooms in the Smithfield farrowing barns filled with pharmaceuticals, including large quantities of two antibiotics: Gentamicin Piglet Injection (gentamicin), and Agrimycin 200 (tetracycline). Both are for the treatment of porcine colibacillosis (which causes diarrhea or sudden death in pigs) which is caused by strains of *E. coli*. Gentamicin is also used to treat Greasy Pig Disease. Gentamicin and tetracycline are antibiotics used to treat humans as well as nonhuman animals.

There were also bottles of Excede for Swine (ceftiofur), which is used to treat respiratory disease as well as Greasy Pig Disease. *E. coli* strains resistant to ceftiofur have been reported. Ceftiofur is an antibiotic of the cephalosporin type. Cephalosporins are also given to humans.

Additionally, piglets at Smithfield farms, [according to Smithfield swine veterinarian Mary Battrell](#), are dosed with carbadox, an antibiotic used, [according to the FDA](#), “for production purposes (e.g., increased rate of weight gain and improved feed efficiency) and therapeutic purposes (e.g., to control swine dysentery and bacterial swine enteritis).”

Carbadox is typically given to pigs in their feed.

Carbadox has been found to be carcinogenic, even at trace levels. It has been [banned](#) in Canada and Europe. In early April 2016 the FDA began the process of banning the drug. The Codex Alimentarius Commission, a United Nations/World Health Organization (WHO) agency, in July 2015, determined there is no safe level of residues of carbadox or its metabolites in food that represents an acceptable risk to consumers. Battrell told a reporter from *Vox* magazine in May 2018 that Smithfield would continue to use carbadox unless it is banned.

Smithfield [says it uses antibiotics](#) “as authorized or prescribed by company veterinarians to control, treat and prevent disease,” emphasizing that “we do not, however, use medically important antibiotics to promote growth or for feed efficiency on farms.” However tetracycline - a drug found at the farm which has been used by animal ag to promote growth - is important to human health.

SPREADING ANTIBIOTIC RESISTANT BACTERIA

Recent studies have found that irresponsible use of antibiotics is [creating antibiotic-resistant “superbugs”](#) that threaten the lives of both humans and nonhuman animals. About [73 percent of antibiotics](#) in the United States, according to the Pew Charitable Trusts, are going to animals raised for food to promote growth and prevent disease.



Some of these antibiotics that are used at Smithfield are critical to human health. Photo by DxE

The advent of superbugs puts everyone at risk, particularly the elderly, the immune-compromised and young children. 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 staph infections in humans tripling in areas surrounding major U.S. pig farms according to a 2013 [study](#) - is cause for public concern. The USDA has known of this threat for years, yet has failed to take any meaningful action. Disease-promoting intensive confinement, filthy conditions, and unrestricted antibiotics remain standard practice in the industry.

While the U.S. Centers for Disease Control (CDC) along with the USDA and the WHO sound the alarm about the risk of a worldwide antibiotic-resistant epidemic, companies such as Smithfield continue to irresponsibly use antibiotics in animal farming.

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. Antibiotic-resistant bacteria can also be brought home by animal food industry workers. A 2008 University of Iowa [study](#) of two pig farms found MRSA on 49 percent of pigs surveyed and on 45 percent of the workers. At one of those farms, MRSA was found on 70% of the pigs surveyed and on 64% 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 Smithfield 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 *enterococcus* 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.

After decades of irresponsible use, 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."

ENVIRONMENTAL CRISIS

Dead and rotting piglets are left among the living. Photo by DxE



North Carolina has almost as many pigs as human residents. The state's some [9 million pigs](#) live on approximately 2,300 farms, many of them industrial operations.

The waste produced by all those North Carolina pigs defies imagination: [15.5 million tons a year in just five North Carolina counties](#) in 2008. About 4,000 lagoons, often the size of football fields, can be seen from the air. [The huge cesspools contain](#) feces, urine, blood, afterbirth, stillborn piglets, drugs and other chemicals.

All that manure translates into a lot of both air pollution and water pollution for North Carolina residents, marine life and wildlife. "When most people think of water pollution, they think of pipes

dumping toxic chemicals," [said Dave Rogers](#), State Director with Environment North Carolina. "But [our research] shows how, increasingly, corporations like Smithfield are ruining our farms and ruining our rivers and bays."

Smithfield, like other CAFOs (confined animal feeding operations), uses a method called "lagoon and spray" to deal with the manure. Poop and urine that falls through slats in the bottom of the pig cages and pens is collected underneath. Minimally treated, it is then pumped out into large open-air cesspools. After about a month it is sprayed onto nearby fields. Invariably it ends up in the air, in the water and on the lands beyond the farms.

The lagoon and spray system used by these giant CAFOs has proved to be an environmental disaster. [A study](#) published by Environmental Health Perspectives researchers concluded: "Based on available data, generally accepted livestock waste management practices don't adequately or effectively protect water resources from contamination from excessive nutrients [nitrogen and phosphorus], microbial pathogens and pharmaceuticals present in the [animal] waste."

AIR POLLUTION

Direct Action Everywhere investigators found the air thick with ammonia and particulate matter both inside and outside of the Smithfield pig facilities. It was hard for both humans and animals to even breathe. Some pigs were panting and attempting to breathe through their mouths. The smell was foul.

The activists spotted homes as close as across the street from one farm they investigated. There was also a church, a school and other businesses within three miles.

According to a study by the Environmental Working Group, 160,000 North Carolinians live within a half-mile of a pig or poultry farm. If one considers the people who live within three miles of a pig or poultry farm, it's as many as 960,000 residents. That's almost 10 percent of the population of North Carolina. In one county, Duplin, the pigs outnumber humans by [30 to one](#).

It is not fun living near a pig farm to put it mildly. One North Carolina resident told the [Earth Island Journal](#), "I have never been to hell before, but it's like living in hell...the odor is worse than a decomposed body; that's what I smell in my home and the whole road I live on."

Naemma Muhammad, the co-director of North Carolina Environment Justice Network told the [Earth Island Journal](#): "People can't open their doors

and windows anytime they want to. They have to negotiate with the air to decide when is the best time to go outside. They can't hang their clothes on the clothesline anymore because the waste will get in their clothes and they have to redo their laundry. And if they wear their clothes they will smell like it all day." Kids described to researchers being teased at school because their clothes smelled of hog waste.

In over [two dozen current lawsuits](#) more than 500 neighbors of Smithfield facilities said their lives have been virtually ruined by the noxious gases and noises emitted by these farms. For one of the suits, in April 2018, a federal jury [awarded 10](#) neighbors \$50 million. ([The award was subsequently reduced](#) to \$2.5 million by a judge who said the \$50 million exceeded limits set by North Carolina law.) For another suit, in June 2018, a judge recently awarded a married couple \$25 million, though that award is expected to be appealed, and could also be reduced per North Carolina law.

The pig farm-generated air pollution is not only stinky and miserable to residents, it also poses serious health risks. The gases produced in the greatest volume are [methane, carbon dioxide, ammonia, and hydrogen sulfide](#).

[Other elements found in fumes](#) emanating from pig CAFOs include 400 volatile organic compounds, ozone, particulate fecal matter and endotoxins.

After spending even a limited amount of time in Smithfield's pig facilities, DxE activists reported eye irritation, sore throats and difficulty breathing. People living close to these pig farms report those same symptoms and more, including stress, anxiety, mucous membrane irritation, respiratory conditions, and acute blood pressure elevation, according to a [University of North Carolina \(UNC\) 2014 study](#) by epidemiologists Steven Wing and Jill Johnston. A [study](#) from the University of Iowa, added to those ailments and discomforts sleeplessness, skin irritation, diarrhea and headaches.

Children living close to these facilities suffer from asthma at higher rates than other children. A [study](#) of North Carolina public middle school students conducted by the state's Department of Health and Human Services found that kids living within 3 miles of an industrial pig farm had more asthma. And in schools where kids experienced livestock odor twice or more a month, kids had 23 percent higher prevalence of wheezing symptoms.

CAFOs, including those raising pigs, emit antibiotic-resistant bacteria into the air. [A 2005 study](#) showed that this bacteria does pose a health threat. "The researchers conclude that exposure to airborne bacteria from a CAFO presents a potential pathway for transferring antibiotic-resistant bacteria from animals to humans."

WATER POLLUTION

A federal judge [has ordered Smithfield](#) to start rectifying the damage it has done to North Carolina's waters in five different counties. "Considering that each of the farms were identified ... by conditions including lagoon leakage and elevated nitrogen concentrations, the corrective action is necessary to mitigate such conditions," U.S. District Court judge Malcolm Howard wrote in 2017.

Pig manure contains large amounts of nitrates, a contaminate when found in heavy concentrations. It ends up in the ground water and in rivers via three routes: leaking lagoons; catastrophic weather events; and by spraying liquefied manure on already over-saturated fields.

Nitrates in the drinking water poses serious human health risks. When humans are exposed to nitrates concentrated in the water, they can experience respiratory problems, diarrhea, miscarriage, respiratory disease, insulin dependent diabetes and, in infants under six months, blue baby syndrome, which is a potentially lethal condition where the blood is unable to carry sufficient oxygen in babies. Some studies point to a possible link between exposure to nitrates and certain types of cancer.

It is estimated that [fully ¼ of all North Carolina households](#) get their water from private wells. In the areas where most of North Carolina pig farms are

located, as much as 85 percent of the population rely on private wells, i.e. they rely on the ground water. A [study](#) by UNC showed dangerously high levels of nitrates in the private wells of 23 counties in the state, all counties where there are large numbers of industrial pig farms.

It is primarily poor people of color who are most threatened by Smithfield's negligence.

A [2000 UNC study](#) concluded: "We examined the locations of North Carolina's approximately 2,500 intensive hog confinement facilities in relation to poverty, race and household water source of neighboring populations. These facilities are located disproportionately in communities with higher levels of poverty, higher proportions of nonwhite persons and higher dependence on wells for household water supply."

Nitrates cannot be removed from water by boiling. Residents can remove nitrates by installing reverse osmosis or ion exchange systems. But those systems are usually not affordable for those most impacted.

Microbial pathogens in the water from pig farms is another concern in North Carolina. A [study](#) conducted by Johns Hopkins and UNC Chapel Hill found that swine facilities in Eastern North Carolina are releasing high levels of fecal bacteria into public waters. While municipal water systems disinfect their water, people relying on private wells often do not.

Disease-producing bacteria and viruses can exist in fecal matter. [Scientists from the Water Research Center wrote:](#) "Some waterborne pathogenic diseases include ear infections, dysentery, typhoid fever, viral and bacterial gastroenteritis and hepatitis A." The very young, the very old and those with compromised immune systems are most vulnerable to these illnesses. *The New York Times* [editorial board also noted](#) that animal waste can carry *E. coli*, *salmonella* and *cryptosporidium* - bacteria that can lead to illness or even death in humans.

A [recent study](#) of North Carolina's waterways found *E. coli* and other dangerous bacteria were significantly higher in water both upstream and downstream from pig farms.

Antibiotics and other pharmaceuticals which are given to pigs and other farmed animals can also end up in public water and in the soil. The Canadian medical journal [CMAJ concluded](#) that the biggest risk with the spreading of antibiotics throughout the environment is antibiotic resistance and disruption of the soil microbial activity.

North Carolina's rivers [have also fallen victim](#) to Smithfield's disregard for the environment. The four main rivers, the Chowan, Roanoke, Tar and Neuse carry 13,000 tons of nitrogen and 1,100 tons of phosphorous - all products of fertilizer and animal waste - to the Albemarle-Pamlico Sound each year.

From 1993 to 2005, the estuary became increasingly polluted. A [study](#) by noted researcher JoAnn Burkholder determined:

- Ammonia increased 500 percent.
- Nitrates increased 88 percent.
- Chlorophyll, an indicator of algae blooms, increased by 76 percent.
- Dissolved oxygen decreased by 36 percent (a threat to fish).

North Carolina's rivers, the Neuse, along with the Cape Fear, were named as the seventh most endangered river (system) in the United States by the conservation organization, American Rivers. According to the group, the biggest threat to the rivers is the large number of nearby CAFOs.

After Hurricane Matthew in 2016, river [monitors reportedly found](#) 10 pig facilities under water and tallied 15 failed waste lagoons.

Possibly the most dramatic sign of waterways in trouble are dead fish littering the shores and surfaces of waterways. Fish kills are a common occurrence in North Carolina. The typical reason is low oxygen. Low oxygen in the water is usually caused by an overload of nitrogen and phosphorous. These elements are typically deposited in the water from animal waste and fertilizer run-off. Excessive nitrogen in the water causes oxygen-sucking algae blooms. The fish can't breathe.

Excessive algae also produces toxins which pose a threat to human and nonhuman animal health. From 2007 to 2011, 11 states including North Carolina reported some 4500 "bloom

events" and 458 cases of suspected and confirmed human bloom-associated illnesses such as rashes and gastrointestinal distress and 175 cases of nonhuman animal morbidity and mortality according to a [2015 study](#) reported in *Toxins*.

One particular type of algae, cyanobacteria, [can harm humans](#) and nonhuman animals even in tiny amounts. The North Carolina Department of Environmental Quality confirmed the presence of cyanobacteria algae 19 times across North Carolina in 2016. So far, no human deaths have occurred but [some dogs have died](#) from exposure to this blue/green algae.

There is a need for more research on the impact of industrialized pig farms on fish populations in the state. But still, scientists do see a clear threat to aquatic life from these operations. Researchers from UNC [concluded](#): "Our analysis suggests that the aggregation of CAFOs on the Coastal Plain of North Carolina causes the majority of the reduced N

deposition to be received by a small portion of the state's area, where aquatic systems are most abundant. In particular, the Albemarle-Pamlico Sound, which is vulnerable to direct deposition of reduced N is located within transport range of the majority of CAFOs... [It] underscore[s] the importance of understanding transport distance and fate of NH3 emitted from CAFOs."

Not only does raising pigs for food pollute the water, it also uses water, a lot of water. Estimates vary, but [researchers say](#) it takes about 600 gallons of fresh water to produce a pound of pork, significantly more than soybeans (216 gallons) or corn (108 gallons).



Investigators found a bag of testicles and tails at a Smithfield farm. Photo by DxE

THE LAW'S PROTECTION OF BIG AG

Under both federal and North Carolina state law, Smithfield can essentially do whatever it wants to pigs. And under North Carolina's "business-friendly" regulatory regime, Smithfield can also essentially do whatever it wants to the state's environment. And if activists, using photographs or video, try to let the world know about any animal cruelty or environmental devastation perpetrated by the corporation, they could be subject to penalty under the state's current "ag gag" law.

North Carolina has laws requiring owners to provide sustenance for animals in their care and they must not place them in "endangering conditions." Owners also cannot torment or torture them or expose them to extreme heat, cold or inadequate ventilation. However, [these laws explicitly exempt animals](#) raised for food or used for research.

The federal Animal Welfare Act also exempts farmed animals. Federal law only addresses the plight of animals raised for food during transport and slaughter. The 28 Hour Law requires that vehicles transporting livestock stop every 28 hours to provide exercise, water and food. The law is virtually never enforced and birds are exempted. The Humane Slaughter Act requires that animals be stunned into unconsciousness before killing.

This law, too, is often ignored. North Carolina's ag gag law or House Bill 405 allows businesses to recover damages in civil court from whistleblowing activities. Activists could be subject to penalties if they work undercover to document conditions of a particular operation or if they go on the property without the owner's permission to take pictures or video and publicize the information.

Currently six states in the country have ag gag laws: Alabama, Arkansas, Iowa, Kansas, Missouri and North Carolina. Federal judges struck down such laws in Idaho and Utah, calling them violations of the First Amendment. PETA recently challenged North Carolina's law on similar grounds. PETA lost when a federal judge declared the organization had no standing. Now the 4th U.S. Circuit Court of Appeals [reversed that decision](#), allowing PETA's lawsuit to go forward. North Carolina, too, may lose its ag gag law.

When it comes to environmental regulation, CAFO's, such as the ones operated by Smithfield, have been able to skirt federal laws limiting industrial air pollution. The problem up until recently has been (to industry's delight) the Environmental Protection Agency's (EPA) failure to come up with a way to measure the air pollution emanating from factory farms.

Now, industrial animal agriculture has received

a big assist from the EPA: The corporations that raise and kill some 9 billion animals a year in the United States are no longer required to report any air pollution at all, which essentially decimates attempts to limit it. "EPA is working diligently to address undue regulatory burden on American farmers," [said Scott Pruitt, EPA chief](#), before he resigned.

North Carolina's "business friendly" legislature and governor have also turned a blind eye to the pollution caused by Smithfield's farms there. Over the last decade, the state legislature has cut resources to North Carolina's environmental agency making it nearly impossible for employees to conduct investigations of polluters. One of the agency's supervisors quit, [telling The Atlantic](#): "There really was the overall feeling of, 'We don't send violations; we're not going to do enforcement. We're going to be customer-friendly [industry-friendly].'"

For relief from the perils of air pollution emitted by Smithfield's farms, neighbors have turned to the civil courts. Recently a federal jury [awarded 10 neighbors](#) of a Smithfield operation \$50 million due to the noxious air and noises they had endured. But a subsequent judge [cut that settlement](#) to \$2.5 million, citing a law recently passed by the Republican North Carolina state legislature limiting the damages in such nuisance suits. For another suit, in June 2018, a judge recently awarded

a married couple \$25 million, though that award is expected to be appealed, and could also be reduced per North Carolina law.

Both federal agencies and North Carolina state agencies have neglected to protect North Carolina's groundwater, as well as rivers and lakes, from Smithfield's waste. This year, Pruitt [suspended](#) for two years the Obama-era Clean Water Rule, sometimes called WOTUS. WOTUS limited how much industries including the animal agricultural industry could pollute smaller bodies of water and wetlands.

Like the neighbors, environmental groups have turned to the courts. In 2011, the court mandated that Smithfield start cleaning up its water pollution in North Carolina. Apparently Smithfield ignored the ruling since [now in 2018, another federal judge](#) has ordered the corporation to fulfill its obligation.



Horrible conditions at Smithfield.
Photos by DxE

WHAT MUST BE DONE



Veterinarian examines a rescued Smithfield piglet. Photo by DxE

DxE has investigated dozens and dozens of animal agriculture operations including many advertised as “humane.” The activists always find the same thing: dirty, crowded conditions, where animals are denied not only access to the outdoors, but individual veterinary care as well as sufficient food and water. When animals become a commodity as they have in the food industry, the bottom line of companies like Smithfield can supersede all other considerations.

Given the increasing consensus that animals matter, it is time to move seriously toward granting nonhuman animals “legal personhood.” While it sounds like a radical notion, legal personhood for nonhuman animals has gained acceptance from some highly regarded

legal scholars such as Harvard Law School’s Cass Sunstein, former regulatory czar in the Obama administration.

Granting “legal personhood” to nonhuman animals would allow for their interests to be represented in court and would ultimately mean the end of animals being used as commodities. Direct Action Everywhere calls for the end of animal agriculture and the end of animals being used for clothing, entertainment and research.

Some people already treat one class of animals – our own feline and canine companions – with the respect and dignity that would be accorded a family member. And there are many laws in place, including in North Carolina,

to protect cats and dogs. We must extend that same consideration to animals being currently used for food, clothing, entertainment and research.

Until animal agriculture is ended, both state and federal agencies must be compelled to take seriously their mandate to protect the country’s water and air from rapacious corporations.

Because pigs nearly outnumber humans in North Carolina and because the amount of manure produced by these pigs apparently cannot be adequately managed and because it presents a health risk to a significant portion of the population, at the least, a moratorium on the building of new factory

farms in North Carolina should be instituted now.

DxE calls for an immediate ban of the carcinogenic antibiotic Carbadox, which Smithfield uses as a growth enhancer. The USDA must ban the use of other antibiotics on these farms to instances where an individual animal is sick.

While the Food and Drug administration has warned the public against the overuse of antibiotic drugs, the animal agricultural industry wantonly continues to use them for growth enhancement, feed economy and to prevent disease in these filthy, over-crowded and unhealthy facilities. The failure on the part of both the industry and the government to strictly control the use of antibiotics has led to the spread of sometimes fatal antibiotic-

resistant infection in humans. These drugs must not ever be used for growth enhancement and feed efficiency.

We cannot continue to allow the financial interests of corporations such as Smithfield to take precedence over animal rights, public health and the environment.



Free at last.
Photo by DxE



CONTRIBUTING AUTHORS

Wayne Hsiung is co-founder of Direct Action Everywhere (DxE) and lead investigator in the DxE Open Rescue Network. He formerly practiced securities law at two national law firms and served on the faculty at Northwestern School of Law.

Leslie Goldberg is a lead researcher on the DxE investigatory team and former investigative reporter for the San Francisco Examiner. She was nominated for a Pulitzer Prize. An artist, political cartoonist and writer, she holds a master's degree in interdisciplinary art from Goddard College.

Michael Goldberg is a lead researcher on the DxE investigatory team and was an investigative reporter and Senior Writer at Rolling Stone for 10 years. He has contributed to Wired, Esquire, Details, The Daily Pitchfork and other publications. His third novel, "Untitled," was published in August 2017.