

"Nature did not intend for animals to live and die in a factory assembly line. In David Kirby's startling investigation *Animal Factory*, he gives a human face to the terrible cost our health and environment pay for this so-called cheap food. This is a story that is seldom told and rarely with such force and eloquence."
—ALICE WATERS

The Looming Threat of
Industrial Pig, Dairy, and Poultry Farms
to Humans and the Environment

ANIMAL FACTORY

DAVID KIRBY

NEW YORK TIMES BESTSELLING AUTHOR OF EVIDENCE OF HARM

FROM HOMELAND TO WASTELAND:

How I Learned Firsthand about the Assault on Rural America

by DAVID KIRBY

Prologue

They've been threatened with lawsuits, and with their lives. They've been shunned at church meetings and labeled anti-farm terrorists by Big Ag operators. But they never, ever give up.

For those fighting the encroachment of industrial animal production into the bucolic corners of heartland America, surrender is unthinkable. They care too deeply about the fate and well-being of rural communities, natural habitats, water and air quality, human health, and animal welfare to let corporate agriculture's share-cropping animal factories spread across the landscape without a fight, no matter how unpleasant things get.

My book *Animal Factory* details many of the health and environmental risks of concentrated animal feeding operations (CAFOs), risks that I came to learn about firsthand in my two years of traveling around 20 states where CAFOs are causing problems. In some cases, it seems, CAFOs can kill.

I first heard about the hazards of factory farming from Robert F. Kennedy Jr., whom I got to know through my writing on autism. Kennedy described a tragic situation in a small town called Prairie Grove, tucked in the hilly country of the poultry-packed "Chicken Belt" of Northwest Arkansas. Giant chicken companies had fed their birds arsenic—a growth promoter and intestinal disease treatment—and local farmers had then spread arsenic-laced chicken litter as fertilizer on many of the fields surrounding Prairie Grove. After visiting the quiet, shady town, I realized how desperate things are there. Dozens of cancer cases, including at least 20 in children, have savaged Prairie Grove. Three 14-year-old boys came down with the same extremely rare form of testicular cancer.

I myself succumbed to much milder symptoms of CAFO pollution. After spending time near the dry, dusty megadairies of Washington and California, and breathing in copious amounts of pulverized cattle feces mixed with pathogens and drugs, I would develop a mild fever, achy joints, a phlegmatic hack, and a raspy throat. Megadairy neighbors call it "manure flu." When I got home from these trips, I would open my suitcase to a massive whiff of cow poop that I brought home with me, enmeshed in my clothes.

So when people I interviewed told me that CAFOs make them sick, I could commiserate. My experiences helped me to relate directly to the rural activists I profiled in my book—people who are defending communities against factory farming interests across the country, from the megadairies in Washington State to the jam-packed "hog



CAFOs overrun with waste have replaced pasture-based dairies.

belt” of North Carolina.

Mostly farmers and fishermen from conservative backgrounds, they are ordinary Americans driven to extraordinary measures. The book leaves them in the summer of 2009. What follows is a brief update on three of the activists I profiled—and how their struggles continue long after the last page is turned.

***THE DARK SIDE OF DAIRY:
Contaminated Wells, Worthless Homes***

HELEN REDDOUT became a full-fledged CAFO activist one summer evening in 1996, when her farmhouse was invaded by the choking stench of dairy cow effluence. “It was like a thousand gallons of fermented sewage had been poured on my bed,” she remembers.



Helen Reddout

The fertile Lower Yakima Valley, Reddout’s home since the 1950s, had been overrun recently by dairy CAFOs that were driving out the small, pasture-based dairies that had dotted the area.

Much of that waste is stored in giant “lagoons” and then sprayed on cropland. But there’s far more manure than the land can absorb. Overapplication of nitrogen and phosphorous

contaminates the Yakima River, the Valley’s lifeblood, as well as aquifers that supply water to thousands of homes.

In 1998, Reddout and her group Community Association for

Restoration of the Environment (CARE) sued several local megadairies for violating the Clean Water Act. The one defendant that did not settle was excoriated by a federal judge and ordered to pay historic sums in fines and legal fees. All of the settlement money from the other defendants went to fund well-water testing around the Valley.

In *Animal Factory*, I detail how residents’ well water had indeed been contaminated with dangerously high levels of nitrates—a known cause of diabetes, spontaneous abortions, blue-baby syndrome, and other health issues. The main source is probably manure.

To find out for sure, EPA officials took some 1,000 samples, and final results will be known this summer. The first round of testing found that one in five samples contained a level of nitrates over the safety limit of 10 parts per million; Reddout’s well was contaminated at 10.7 parts per million. Affected households were ordered to stop drinking well water, and some people were told to avoid skin contact as well.

CARE’s alliance also has found that the megadairies are dumping cow waste and carcasses for composting on Indian lands. The group is working with Yakima Nation leaders on banning the practices. “They need it. One man said they were they throwing dozens of dead animals on a pile,” Reddout says. “Dogs were carrying hides, skulls, and feet into his yard. His grandchildren were afraid to go outside.”

Reddout’s work has taken her beyond the scrubby hills of her beloved valley, most recently to Maricopa, Ariz., where a massive beef operation is making life miserable for many. “I had to put six Kleenexes over my mouth, it smelled so bad, and we were four miles away!” she says. The stench made her throw up. “It was so sickening and so ugly. You could feel the stuff on you.”

She met with distraught neighbors in a beautiful new subdivision at a mission-style home that was once worth \$300,000. Now it’s empty. “The owner would love to stay here, but she’s giving up and

moving back to California, paying the bank \$50,000 to walk away.”

Several families were there, many with preschool-aged children, all on breathing machines, Reddout says, adding that “asthma and autism levels are high in the area.”

Back in Yakima, the EPA agreed to molecular testing of the nitrates to determine their origin. “And once that’s found, we don’t want more studies or education; we want prosecution of the offenders,” Reddout warns.

That could happen. EPA officials told her they will make nitrates in Yakima groundwater a “showcase issue” this year, she says. “And that’s a great victory for our valley.”

“MANURE LADY” VS. GIANT CRAP BUBBLES: *Welcome to Eastern Indiana*

BARBARA SHA COX doesn’t know whether to laugh or cry when her grandchildren call her “the Manure Lady.” But she has to admit that the nickname fits. Cox has scrambled around her native Indiana for several years, helping people organize against CAFOs, both those that are incoming and those already in place.

In Indiana, where Gov. Mitch Daniels has vowed to double pork production by 2015, it’s not always easy work. But that hardly intimidates Cox: She packs a wallop of energy into her 5-foot-3 frame, and her down-home but serious demeanor has led officials to fear and respect the plucky little grandma from eastern Indiana.

Cox is strongly pro-agriculture and, coming from a dairy family, she knows all about cows. “I learned that you treat the animals right and you will prosper,” she says. “We had the most pampered cows in the county: about 80 to 100 of them.”

Now, most dairy cows in Indiana are packed into CAFOs, like one that was threatening Winchester, a small dot in the sprawling cornfields east of Muncie. Union-Go Dairy was storing 21 million gallons of waste in a lagoon lined with synthetic material, to prevent seepage.

But methane and other gases got under the lining, creating an archipelago of six big bubbles towering 20 feet into the air like giant

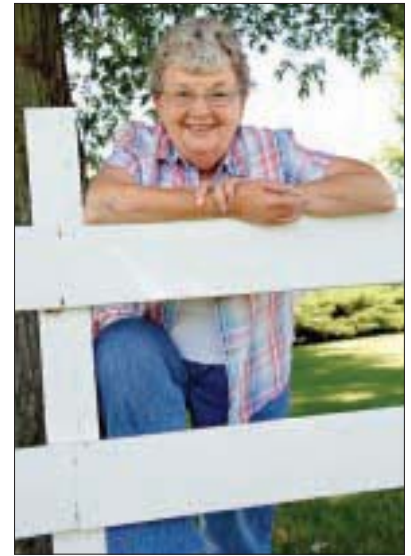
brown popovers. In the summer of 2008, Cox warned officials the crap bubbles could explode into flaming balls of methane, damaging buildings, killing livestock, contaminating wells, and coating nearby acres with a greasy film of liquid cow poop.

But it wasn’t until a *Wall Street Journal* reporter showed up and wrote about the “bubble-trouble” lagoon that officials ordered the dairy to do something. Owner Tony Goltstein was threatening to pop the bubbles with a knife. But that could unleash a witch’s brew of deadly methane, ammonia, and hydrogen sulfide into the surrounding area.

“How are they going to safely burst those bubbles?” Cox demanded of the Indiana Department of Environmental Management. “It’s a huge concern for our health.” Eventually, a team of experts was dispatched to deflate the lagoon, inserting special valves into the bubbles and allowing the dangerous gases to slowly escape.

Cox had warned about CAFO cleanups for years, urging Indiana to require “financial assurance packages” against catastrophic events. But such reform is hard to achieve.

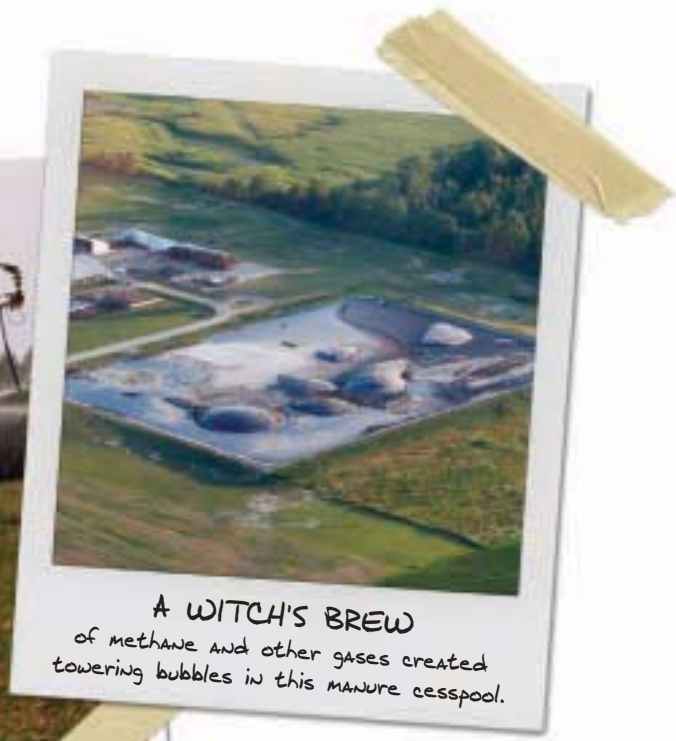
“We’ve taken bills to the legislature, only to see many stopped or not even heard in committee,” she frets. “This year, we had one



Barbara Sha Cox



spreading manure



A WITCH'S BREW
of methane and other gases created
towering bubbles in this manure cesspool.



that would ban spreading manure within two miles of a state park.” The biggest spreading weekends are Memorial Day, the Fourth of July, and Labor Day, she notes, when the parks are most in use.

But even this simple measure faltered, especially after the Indiana Chamber of Commerce opposed it. “I asked them why, when so many small businesses depend upon tourism near the parks,” she says. She got no answer.

Another failure “really ticked me off,” Cox says: an unsuccessful bill to ensure the proper disposal of dead animals. “When you have a compost pile for dead livestock, it’s supposed to be covered and locked, so wild animals don’t drag things into people’s yards,” she says. “And they voted it down—such a simple thing and they made it sound like something at the U.N.”

But the Manure Lady won’t fade away. “We have pictures,” she warns. “Dead turkeys in creeks, hog heads in backyards, rotting

cowhides in gardens. They can’t dispute those. They know we worked very hard on this issue.” And they know that Cox and her group, Indiana CAFO Watch, will be back again next time around.

PIGS, POULTRY, AND POLLUTION: Col. Dove to the Rescue

RICK DOVE did two tours of duty in Vietnam as a U.S. Marine and a lengthy stint as a judge at Camp Lejeune, not far from his home on the Neuse River in New Bern, N.C. But it’s his long wars with the hog CAFOs at home and chicken farms in Maryland that left the biggest mark.

Sometimes his work almost kills him. Dove still feels the effects of a nearly lethal multi-drug-resistant *E. coli* infection he contracted in 2008, after he fell from a canoe while trying to collect runoff samples at a Perdue poultry contractor on Maryland’s Eastern Shore.

As an advocate for the Waterkeeper Alliance, he was leading some investigators up a tidewater ditch to the point where chicken CAFO leachate was likely spilling from a drainage pipe. From there, the waste could easily make its way to the Chesapeake Bay, site of legendary algal blooms and foul fish kills.

Dove knows all about the environmental and health hazards of letting too many nutrients from CAFOs leach into waterways. He left the Marines to become a fisherman on the Neuse, but it didn’t last long. In the 1990s, nutrient-rich waters produced a raft of algal blooms, fish kills, and outbreaks of the dreaded protozoa *Pfiesteria*, which sucks blood from fish by the millions and sickens people on the water. A string of hurricanes in the late ’90s swept both pigs and lagoon waste into massive foaming cauldrons of filth and death.

Dove and his colleagues—such as Larry Baldwin, Lower Neuse River-keeper in North Carolina, and Kathy



Rick Dove joins other North Carolina activists at a protest in Raleigh. An advocate for the Waterkeeper Alliance, Dove has traced manure leachate, algal blooms, fish kills, and *Pfiesteria* outbreaks to waste from factory farms.



Phillips, Assateague Coast-keeper in the Delmarva region—continue monitoring CAFOs. Using evidence gathered from their surveillance flights and risky water testing in ditches, they have filed two new Clean Water Act lawsuits.

One case involves “one of the worst polluters” in North Carolina, Dove says. “It’s been

problematic going back to the 1990s. We’d find discharges and turn the evidence over to the state, which did little more than apply a slap on the wrist.”

The state is “not doing what it should to monitor CAFOs and enforce the law,” he adds. “So we decided to finally do something, and sent volunteers out and collected sufficient evidence to file a suit.”

In February, Dove, Baldwin, the Neuse River Foundation, and the Waterkeeper Alliance sent a 60-day “notice of intent” to sue a 7,000-hog operation, J.C. Howard’s Hill and Taylor Farm, “for illegally discharging harmful pollutants—including fecal coliform and oxygen-depleting nitrogen and phosphorous—into waters of the Neuse River watershed,” says a Waterkeeper statement.

As Baldwin notes, with 2 million-plus hogs in the watershed producing the equivalent fecal waste of more than 20 million people, “the environmental problems associated with industrial hog pollution can no longer be ignored.” The parties are discussing ways to eliminate the lagoons and sprayfields at this facility without litigation.

In Maryland, Phillips and Waterkeeper filed a similar notice against Alan and Kristin Hudson and their corporate contractor, Perdue Farms, who they allege are contaminating a stream that leads to the Chesapeake. They seek fines, operating changes, five years of monitoring, and legal fees.

Dove and Phillips had flown over the area in search of chicken waste piles near waterways, finding one such spot at the Hudson farm. Downstream from the CAFO—the same location where Dove took his near-fatal tumble—high levels of fecal coliform and *E. coli* were found on eight different days, according to the complaint.

The defendants have moved to dismiss the case. They say that inspectors determined the pile was human sewage sludge, to be used for fertilizer, and asked the Hudsons to move it back from the ditch. The plaintiffs dispute this account. Pretrial motions are being argued in federal court.

Dove knows that pursuing legal matters can take time. So does waiting for change to come from the top: Congress and the White House. But he’s losing patience.

“North Carolina still has 2,600 pig cesspools cooking in the hot

sun. If I were Mother Nature, I would say ‘Enough is enough.’ And now they are predicting much larger hurricane seasons, and these factories and lagoons are still out there, in harm’s way.”

One of these days, “probably not too far off,” Dove warns, “nature is going to deliver one swift kick in the butt to us, and the best that environmentalists will be able to say is, ‘I told you so.’ And I don’t know what *that’s* going to be worth. There’ll be no value in that because it’ll be too late.”

Epilogue

They say that reading a book might change your life, but writing a book almost always does. I am not the same person I was three years ago before I started my research. I have changed the way I shop, cook, eat, and to a certain extent, the way I vote and approach our two-party political system. (Hint: Neither party has much of the high ground on the CAFO issue.)



I changed my ways because I know that factory farms do not have to be the main source of our animal protein, and I choose to vote with my fork. Taking a page from the Meatless Mondays campaign, which urges people to refrain from flesh one day a week, I have reduced my own meat intake by more than one-seventh. I have learned to go several days without eating meat—though sustainably raised eggs and dairy will always be in my diet—and when I do cook beef or chicken, I buy less, cut it up, and cook it with rice or veggies. One chicken breast can easily feed four people this way.

It’s true that sustainably and humanely raised animal products are more expensive, so I often look for “manager’s special” tags that can reduce the price by a third or more (cook it that day or freeze it). I am also trying to get a coveted spot at my local food co-op, which sells grass-fed, organic meat, eggs, and dairy at a deep discount.

NO, THAT'S NOT
PEPTO-BISMOL
That's the waste of
thousands of pigs crammed
inside dark sheds.



To prevent overflows, factory farmers spray the prolific contents of some of North Carolina's 2,600 so-called manure "lagoons" onto nearby fields.

As for industrial meat, I sometimes think it is just too cheap. Sometimes, young chickens are sold in my supermarket at 59 cents a pound, or about \$3 a bird. That animal's life, I believe, was worth more than \$3, and I personally have no problem paying a higher price for something that could feed a family of five.

On the policy front, as a citizen as well as a journalist, I support certain measures that have been proposed to rein in some of the excesses of animal factory farming. Most of these steps were endorsed by Barack Obama when he campaigned in Iowa (the nation's No. 1 hog state), and readers of this magazine should hold the President to his promises.

Here are just a few:

- ▶ **Local Control:** Allow counties, rather than states, to decide whether a CAFO may set up shop.
- ▶ **More Competition:** Confront the monopolistic, anti-competitive business models of mammoth "vertically integrated" food companies and ease their domination of the market, enabling smaller non-corporate farms to stay in business.
- ▶ **Packer Ban:** Prohibit companies that own large processing plants from owning the animals they slaughter—a practice that can shut smaller competitors out of the supermarket.
- ▶ **Subsidy Limits:** Place strict limits on eligibility for subsidies, and direct funding to more independent, community-supported producers. Giant farms that grow grain and corn to feed CAFO animals receive billions of dollars in direct-payment subsidies furnished by us, the taxpayers. Billions more go to payments to large CAFO operators.
- ▶ **Antibiotic Ban:** Prohibit the use of medically important antibiotics in animal farming, except for treatment of sick animals, by passing a bill currently before Congress, the Preservation of Antibiotics for Medical Treatment Act. Seventy percent of all U.S. antibiotics are now given to poultry and livestock for subtherapeutic use (growth promotion and disease prevention), contributing to widespread antibiotic-resistant pathogens such as MRSA, which now kills

more Americans each year than AIDS.

But will any of this actually get done in the next few years? "I'm not more optimistic; I'm less," says Rick Dove. "*Animal Factory* hit and it should've set the world on fire, sent lagoons into oblivion. The book exposes the whole thing, and I would've expected the response to be tremendous. But I'm not seeing that. The public is going to close their eyes and buy their meat and not get involved. I'm having a difficult time understanding why there isn't outrage across the country."

Dove does see one glimmer of encouragement. "Obama's starting to get involved, the signs are there, and if the federal government takes some action, that could be a wonderful thing and produce some great results. But I have a hard time getting optimistic because I

have seen too many chances just erode away and fizzle out." ■

About the Author

David Kirby's *Animal Factory: The Looming Threat of Industrial Pig, Dairy and Poultry Farms to Humans and the Environment* was published in March by St. Martin's Press. He also wrote the award-winning *New York Times* bestseller *Evidence of Harm: Mercury in Vaccines and the Autism Epidemic—A Medical Controversy* (St. Martin's Press, 2005). A journalist for more than 15 years, he has appeared on numerous television and radio programs and is a contributor to *The Huffington Post*. To view a video interview with Kirby, visit humanesociety.org/magazine.



ALL EYES ON OHIO

On Bruce Rickard's farm about an hour northeast of Columbus, Ohio, hens roam the pasture, scratch for bugs, chase each other, and avoid the amorous advances of their rooster friends.

They're free to do what comes naturally and to be who they are: chickens expressing their "chicken-ness," says Rickard. It's an existence far removed from that of their brethren on factory farms, who spend their short lives cooped up in battery cages that don't allow them to spread their wings. Those animals eat, defecate, and lay eggs like cogs in a machine, regarded by industrial farm operators as "replaceable parts," says Rickard.

By contrast, Rickard's farming practices date back to the country's first settlers—traditions that big agribusiness abandoned with the advent of high-volume confinement systems following World War II. "It's when we decided to think about food differently," he says, "and where the taste of food and the color of food comes out of a laboratory in New Jersey instead of off the green grass on a farm."

As a family farmer in the heart of one of the nation's top agribusiness states, Rickard is taking a stand against inhumane practices in the latest battleground for better treatment of farm animals. Ohioans for Humane Farms—a coalition of family farmers, animal protectionists, environmentalists, veterinarians, public health specialists, and consumer advocates—is collecting signatures to place a measure on the November ballot calling for minimum standards.

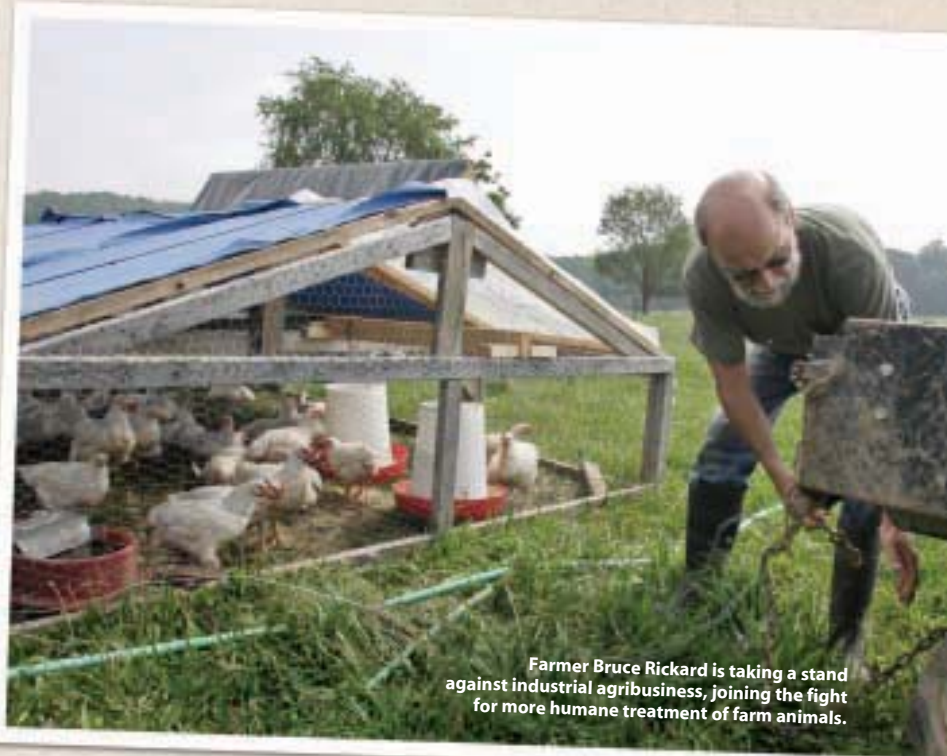
If passed, the measure will prohibit the confinement of veal calves, pregnant pigs, and egg-laying hens in cages so small they cannot extend their limbs or engage in natural behaviors. The killing of sick or injured cows or pigs on the farm would have to be performed in a manner deemed acceptable by the American Veterinary Medical Association. And any cow or calf too sick or injured to stand and walk could not be sold or transported for human consumption.

The proposed amendment is "absolutely pro-family farm," says Karen Minton, the ballot campaign's manager and The HSUS's Ohio state director. It will help create a more level playing field for family farmers who practice good animal husbandry and who have been hurt by the rise of large-scale, industrialized factory farms. Along with 170,000 breeding sows and tens of thousands of veal calves, Ohio has 27 million egg-laying hens—about three times as many as it had in 1978—while the number of egg farms has fallen by about half.

Last year, the industry spent millions trying to preempt animal welfare reforms through the creation of its own entity, the Ohio Livestock Care Standards Board. Approved by voters in November, the measure to establish the board "promised everything but apple pie and that the Buckeyes win every game," Minton says, but in reality

the 13-member body is heavily dominated by agribusiness interests opposed to lasting change. "I think the best you can hope for out of them is a 20-year study on battery cages," says Rickard.

Ballot initiative backers aren't looking to eliminate the board but to allow Ohio voters to establish necessary minimum guidelines. "When you look at what truly brought this board into place and the fact that it was created to thwart reform," says Minton, "I think Ohioans want the opportunity to give this board direction, because



Farmer Bruce Rickard is taking a stand against industrial agribusiness, joining the fight for more humane treatment of farm animals.

we're tired of seeing our state being the bottom of the barrel when it comes to animal welfare."

An undercover cruelty investigation at a Plain City dairy farm recently brought the state's factory farming practices even more scrutiny. In late May, footage shot by the animal welfare group Mercy For Animals showed workers punching calves in the face, jabbing cows with pitchforks, and beating them with crowbars, among other abuses. A worker was arrested and charged with 12 counts of animal cruelty, a misdemeanor in Ohio.

While the Plain City case represented practices that are likely already illegal, the groundswell against other, more routine factory farming abuses continues to grow. Retired Honda maintenance worker Evan Christian lives less than a mile from a large egg farm that entered the neighborhood about 25 years ago, bringing the kind of manure stench that comes with large-scale confinement of animals in crowded spaces. A 55-year resident of York Township, Christian can't plan any outdoor activities because he never knows when the foul winds will blow his way: "Really, it's taken away a lot of our freedom."

— James Hettinger and Kristin Smith