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MEAT AND MILK FACTORIES

The average American eats more than 200 pounds of red meat, poultry, and fish per year. That's an increase of 23 pounds over 1970, and it would be difficult for anyone to maintain that Americans in 1970 were not eating enough of these foods. In the last 35 years, the amount of beef eaten has fallen, but that has been outweighed by the near-doubling of chicken consumption. Pork comes in third, at 51 pounds per person, behind chicken and beef. More than 60 percent of the pork eaten by Americans is bought already processed, as bacon, ham, lunch meats, hot dogs, or sausage.¹

The Oscar Mayer bacon that Jake bought is in this category. We wanted to trace it back to the farms that raised the pigs, but that proved impossible. Oscar Mayer is now owned by Kraft Foods, the largest food and beverage company in North America and the second largest in the world (only Nestlé is bigger).² After numerous phone calls that involved working our way through seemingly endless menu options, we spoke to Consumer Services' Renee Zahery, who told us that "information about our procurement and processing of our product is considered proprietary in nature" and suggested we take up these questions with "a great source," Janet Riley, senior vice-president at the American Meat Institute.³

When we talked with Riley, she told us only that Oscar Mayer probably has contracts with suppliers such as Tyson, Smithfield, and some of the lesser-known, vertically integrated pork producing companies. So

although we could not identify any of the specific farms that produce pigs for Oscar Mayer, it seems a fair assumption that their bacon comes from a cross section of today's intensive pork industry. What is that industry like?

THE POOP ON PIGS

When Peter first wrote about factory farming in America in 1975, there were more than 660,000 pig farms producing just under 69 million pigs a year.⁴ Over the next thirty years, nearly 90 percent of those pig farms vanished, so that by 2004 there were only 69,000. But these farms will produce 103 million pigs a year.⁵ Across the country, the family pig farmer has been replaced by Smithfield, ConAgra, ContiGroup, and the Seaboard Corporation. Most pigs raised today come from factory farms.

The boom in mega-piggeries has caused environmental problems even more acute than those caused by intensive chicken production. An adult pig produces about four times the amount of feces of a human, so a large confinement operation with, say, fifty thousand pigs, creates half a million pounds of pig urine and excrement every day. That's as much waste as a medium-sized town—but remember that human sewage is elaborately treated before being released into the environment and factory farm waste is not.

The summer of 1995 was wetter than usual in North Carolina. During the preceding 15 years, pig production in that state had boomed, making the state the second largest pork producer in the United States. Its pigs were producing 19 million tons of waste per year—or 2.5 tons of feces and urine for every citizen in the state.⁶ During that wet summer, spilled animal waste killed ten million fish in North Carolina. In one of the most dramatic incidents, an eight-acre waste pond—the industry term is "lagoon" but that word conjures up images of blue water around a coral island, not a vast outdoor cesspool—burst, releasing 25 million gallons of liquid pig excrement into the New River, killing thousands of fish and polluting the river for miles downstream. Regulations in North Carolina were tightened, but spills continue to happen from time to time across the country. Even when there is no major spill, there is often seepage from the waste pond and run-off into the creeks when the manure is sprayed onto nearby farmland.⁷

Pig factory farms are, if anything, even worse neighbors than the chicken factory farms we described earlier. Carolyn Johnsen, a reporter for the Nebraska Public Radio Network, covered the controversial growth of mega-piggeries in that state. She attended heated public meetings, divided between those who saw economic opportunities in the new industry and those angry at the contamination of their air and water and concerned about the fate of the family farm. She spoke to people like Janie Mullinex, who lives south of Imperial, Nebraska, about a mile away from 48,000 pigs confined in 24 large barns. The owner had claimed, before putting up the confinement operation, that he had new technology and it would not smell. But Mullinex claimed that was not the case. "It comes in the house—even with the windows shut, it comes in with a strong south wind," Mullinex says. "It gives my seven-year-old diarrhea if we have it all day and it makes me sick. I don't vomit, but I'm nauseous and I have a tremendous headache." The Mullinex family has new storm windows and new siding and they have insulated their house, but it hasn't stopped the smell coming in.

Johnsen also visited Mabel Bernard, who has lived and raised her family on her property near Enders, Nebraska, since 1926. Her enjoyment of her home has been spoiled by the construction of sheds holding 36,000 pigs about a mile north. When the wind comes from that direction, the stench wakes her up at night, burning her eyes and making her feel sick.⁸ One Nebraska pig producer gave implicit support to those who don't want pig farms nearby when he won a 30 percent property tax reduction on his house by arguing that its value was decreased because it was located near a pig farm—his own.⁹

But big pig farms are more than a nuisance. They are also a public health risk, according to the American Public Health Association, the largest body of public health professionals in the United States. In 2003, citing a host of human diseases linked to farm animal waste and antibiotic use, the APHA passed a resolution urging government officials to adopt a moratorium on the construction of new factory farms.¹⁰

A PIG'S LIFE

Pigs are affectionate, inquisitive animals. The film *Babe* was on solid scientific ground when it made its hero capable of doing everything a dog

can do in the way of herding sheep. In fact, Professor Stanley Curtis thinks that the sheepdog's job would be a "pushover" for pigs he has investigated. Curtis is a hard-nosed scientist who worked for many years in the Department of Animal Sciences at the University of Illinois and received a Distinguished Service Award from the National Pork Producers Council in 2001. He conceived the idea of making it possible for pigs to tell producers what kind of conditions they prefer, and to that end, trained them to operate joystick-controlled video games. They learned quickly, and Curtis discovered that "there is much more going on in terms of thinking and observing by these pigs than we would ever have guessed."¹¹ The big problem, in fact, is not getting pigs to tell us what they prefer, but persuading the producers to give it to them.

To keep a dog locked up for life in a crate too narrow for her to turn around or walk more than a step or two forwards or backwards would be cruel and illegal. Yet when it comes to how pigs are kept in the U.S., here are two startling, and critical facts:

1. There is no federal law governing the welfare of farmed animals on the farm. Literally, nothing. In the U.S., federal law begins only when animals are transported or arrive at the slaughterhouse. (And even then, there is no law regarding the slaughter of chickens or other birds, who make up 95 percent of all land animals slaughtered in the U.S.) This is not because there is any constitutional barrier to covering the welfare of animals on farms, but simply because Congress has never chosen to enact any such law.
2. Most states with major animal industries have written into their anti-cruelty laws exemptions for "common farming practices." Effectively, then, cruelty is legal as long as it is done by most farmers, and you can't prosecute anyone for it.

Together, these two points mean that, as lawyer and author David Wolfson puts it, "farmed animals in such states are literally beyond the law and any common practice, no matter how horrifying, is legal."¹²

More than 90 percent of pigs raised for meat today are raised indoors in crowded pens of concrete and steel. They never get to go outside or root around in pasture and don't even have straw to bed down in.¹³ The most tightly confined of all are the breeding sows. Under the factory's

rigid production schedule, they are made to produce litter after litter as quickly as possible, which means that they are pregnant for most of their lives. During their pregnancies, which last about 16 weeks, most American sows are confined in “gestation crates”—steel-barred crates or stalls just a foot or so longer than their bodies, and so narrow that the sows cannot even turn around. Of the 1.8 million sows used for breeding by America’s ten biggest pig producers, about 90 percent are kept in this manner, and for the industry as a whole, the figure is around 80 percent.¹⁴

In these conditions, apart from the brief period when they are eating, these sensitive, intelligent, and highly social animals have nothing to do all day. They cannot walk around or socialize with other sows. All they can do is stand up or lie down on the bare concrete floor. When the time comes to give birth, they are also confined in what producers call a farrowing crate. (Is it part of the gulf we draw between ourselves and other animals that leads farmers to talk of animals as “farrowing” rather than “giving birth,” “feeding” rather than “eating,” and “gestating” rather than “being pregnant”?) The farrowing crate keeps the sow in position, with her teats always exposed to her piglets. She is unable to roll over—and this, the defenders of the crate say, ensures that she will not roll on top of, and perhaps smother, her piglets.

In Europe, widespread public concern about the close confinement of sows led to the European Union asking its scientific veterinary advisory committee to investigate the impact of gestation crates—or sow stalls, as they are known there—on the welfare of the sows. The investigation found that sow stalls had “major disadvantages” for welfare. Pigs like to forage and explore their environment. In natural conditions they will spend up to three-quarters of their waking hours doing this. In stalls, of course, they cannot. When a sow is first put into a stall, she typically tries to escape and may push against or attack the bars. After a time, she gives up, and often becomes quite inactive and unresponsive. This, the scientific veterinary committee says, indicates clinical depression. Other sows in stalls carry out meaningless, repetitive motions, like biting the bars of the stall, chewing the air, shaking their heads from side to side, nosing around repeatedly in the empty feed trough. These pointless movements are signs of stress, similar to the endless back and forth pacing of tigers and other big cats when kept in the traditional sterile cages of old-fashioned zoos. Fortunately, many zoos have become more

enlightened and no longer keep their animals in such cages. No doubt public disapproval helped persuade them to make the change. Sows in factory farms are actually worse off than the big cats in zoos used to be, because they can’t even pace back and forth. But they are invisible to the public.

In addition to psychological stress, sows in crates are also less healthy than sows able to walk around. (That shouldn’t be a surprise to anyone who knows that it is healthy to get some exercise.) Sows in crates frequently become lame and develop foot injuries from standing on concrete for every moment when they are not lying down. They also get more urinary tract infections.

In sum, the scientific veterinary committee concluded, “sows should preferably be kept in groups.”¹⁵ After considering this report, the European Union passed a law phasing out sow crates by the end of 2012, except for the first four weeks after mating, and requiring that sows be given straw or similar materials that they can play around with, to reduce the stress of boredom. This law will apply to all 25 countries of the European Union, which together slaughter more than twice as many pigs as the United States.¹⁶ Even before the new law comes into effect, Britain and Sweden acted to ban sow stalls. All of the 600,000 breeding sows in Britain now have, at least, room to turn around and can interact with other pigs.

“WAYNE BRADLEY,” IOWA PIG PRODUCER

As we mentioned when discussing how agribusiness corporations refused our requests to see how they keep their animals, one Iowa pig producer was more open than all the rest. In his view, “education is the best defense against the animal rights attack on the livestock industry.” He felt he had an obligation to show people around his farm, he told us, because many years ago he had become “unglued” by a television show about farming. His wife told him: ‘I’m not going to listen to this. Next time somebody calls out here for an interview . . . you better talk to them. Either that or just shut up.’ He’s been talking ever since. He talked to us several times—by telephone and in person when we toured his farm. Everything went well until we sent him what we had written and asked him to check it for any inaccuracies. At that point he suddenly

asked us to not use his real name or say anything that might identify his farm and location. He had worries about “animal rights people,” he said, “doing damage to things.” In what follows, therefore, everything is as it happened, but we have changed the farmer’s name.

The Bradley farmhouse and main buildings stand near the intersection of two county roads. Like many farmsteads in Iowa, it is sheltered from the winter winds by rows of lush cedar trees along the north and west. There is a big white house, a wide yard, silos, and an old barn. But these emblems of an older way of farming are overwhelmed by those of the new. The driveway opens up on an array of tractors, trucks, and machinery and, farther down, rows of low metal pig confinement buildings. A complex of metal grain bins, augers, and pipes towers over everything. Wayne Bradley greets us in the driveway. He is a big, hefty man, 50-something, full of energy, friendly and talkative. We walk to a small office in the corner of one of the pig buildings and sit down. Things are a bit tense at first, but grow easier as he tells us about his family and farm. He farms the land of his father and grandfather—Bradleys have been farming here since 1875. His son, Alex, farms with him and runs a herd of cattle on land of his own. It is a family farm, he says, but also a corporation because of financial advantages that incorporation offers. He farms 2,600 acres, much of it land rented from neighbors “scattered around about nine miles.” The Bradleys have 500 sows, and they sell between 10,000 and 12,000 pigs a year.

As we chat, he is eager to make a few points right away. He emphatically opposes the claim that pigs in confinement are abused. “When it’s thirty below zero, my hogs are laying out comfortable in a seventy-degree building—granted, it’s not bedded, but they’re clean and they’re just laying there grunting and oblivious to the blizzard that’s going on outside. That’s as opposed to when we used to raise them out in open sheds and we spent the day bedding them and they’d have frozen ears and frozen tails and those types of things.”

Wayne wants us to understand the economics that have driven his decisions. “We’ve had to specialize to a certain degree,” he says. His other major concern is government regulation, primarily of waste handling. He feels that his farm is “under intense regulation and intense scrutiny all the time.” He believes it is unfair because he collects manure and wastes in a concrete basin and can use the nutrients on the fields as weather permits. “Our capability of handling wastes now is so much

better than before. Our chances of polluting are so much less because we inject it.” Many pig producers mix the manure with water and spray it onto fields. That just leaves it on the surface where it can easily run off into creeks when it rains. Wayne has a liquid manure injector, which he pulls behind a tractor. Essentially a large tank on wheels, it pumps liquid manure down on the ground where discs cover it with about two inches of topsoil.

Wayne obviously feels caught in the middle—being squeezed between those who promote organic or pasture-raised pork and the giant corporations that now dominate pig production. “I’ll defend confinement. I’m not going to defend Smithfield Foods because I think it’s taking it to the extreme. They had 250,000 sows and then they went to 500,000 and now they’re up to 700,000 sows. I don’t think that’s economically healthy . . . The packers are getting more power and control than they need.”

MAKING BACON

The Bradleys’ pigs are in what’s known as “total confinement”—none of them ever go outdoors. He begins the tour by taking us into one of his four farrowing rooms, where his sows give birth and then feed their piglets. These were his first confinement buildings, which he built himself in 1975. He tells us, “I was so happy when we got the hogs in here. I could get them in out of the cold.” We are in a large room maybe twenty by about forty feet. It stinks inside, of course, but not as badly as some units we’ve been in over the years. A concrete walkway runs down the length of the building between two rows of farrowing crates containing sows and baby pigs. The crate has two parts: a taller metal framework to hold the large sow and a lower “creep” area to one side where the baby pigs sleep when they are not nursing. The sow’s part is about two feet by six feet; her body nearly fills the space. She can stand up and lie down to sleep or nurse her piglets. She cannot turn around or do much else. In some crates, the “floors” are steel slats; in others, large-gauge wire mesh coated in plastic. There is no straw or other soft bedding material. Pig wastes pass through the openings and fall into a shallow pit below. A system of cables and scrapers periodically sweeps the wastes down to a pipe and they flow into a covered pit outside.

Each sow stays in her farrowing crate for about 20 days. Wayne tells us that the crate offers the piglets a safe area away from the sow when she lies down to sleep or nurse them. We look down on a sow with a litter of baby pigs all piled up like puppies and fast asleep and say something about how cute they are. "Do they look like they're abused?" he asks. No, they certainly don't, we tell him. But what about the various mutilations that we had heard are routinely carried out on pigs kept in confinement: cutting off their tails and clipping their "needle teeth" and castrating them without an anesthetic? There are reasons for each of them, Wayne explains. The pigs' needle teeth can cut their mother's nipples and they can cut each other in fighting over nipples. "Tail docking" prevents pigs from biting and chewing on each other's tails. We press him further: isn't it only pigs in confinement who bite each other's tails? Don't they do this because they are bored, spending all their time crowded together in a sterile environment with nothing to do all day long? "I guess I would have to agree with that to a point. But we used to raise pigs out in large pens like cattle lots and we had tail-biting then too. So we've been docking tails for quite a number of years." We've seen cattle lots, and we would not be surprised if the pigs were bored there too. But we keep that thought to ourselves.

Wayne castrates his male pigs at ten days after birth. Consumer demand drives that, Wayne says. Meat from male pigs with testicles has a distinctive gamy taste called "boar taint" that consumers, apparently, don't like. If the pigs are killed at an earlier age, as happens in some other countries, this isn't a problem. But the U.S. consumer likes large cuts of meat that can only come from a more mature pig, and then the taint becomes more noticeable.

Why are these painful procedures done without any anesthetic? Again, Wayne is disarmingly candid: "I guess I don't have a good answer for that." We ask if it is the expense involved. "Well, it would be an expense. Obviously it is going to cost money. I have no idea. I can't sit here and say, 'Well it's going to cost me a dollar a pig.' Because if it was a dollar a pig, I mean there's not a dollar a pig to throw away. If it was a nickel or a penny or something like that, there would be no reason that we couldn't. But I doubt that it would be that inexpensive." We ask Wayne if he has ever heard of anyone using a local anesthetic for these procedures: "I never have. It's obviously a question to be asked." He hesitates before continuing: "You know, maybe farm folks are more . . .

I don't know if I'd say immune to that or not. I mean until I was 22 years old my dentist never used novocaine. I went to the dentist and I grabbed ahold of the chair and he drilled and it was over."

We're thinking that we would have made a different choice—and perhaps the pigs would too, if they could—when Wayne turns the conversation back to the sow with her piglets in the farrowing crate in front of us. "Another advantage to this versus a pasture farrowing situation is that we can do a better job of keeping an eye on the sow and the pigs. If there's a problem, you're right here. It's very easy to give her a shot if she's not feeling well."

Wayne's piglets are weaned when they are two weeks and a few days old. In more natural environments, piglets nurse from their mothers for at least nine weeks, and sometimes longer,¹⁷ but nursing would prevent the sow becoming pregnant again during that period, thereby reducing her productivity. So the piglets are removed from their mother and she goes back to the breeding area, while they are placed together with other litters in a "nursery" building on a nearby farm. The breeding area is part of the gestation room, and that is where Wayne takes us next. At one end stand three huge, hairy boars, one to a stall. Wayne explains that they stay in these stalls about half the time, spending the other half in a resting pen where they do have room to walk around. They rotate the boars back and forth, he says, because "overuse" lowers semen quality. The boars are rough and wild-looking.

A sow will be made pregnant again as soon as she comes into estrus. Wayne uses a combination of "live mating"—a boar is allowed to mount the sow—and "AI," or artificial insemination. Wayne's pregnant sows live in group pens instead of the narrow crates that are typical of the big corporate pig factories. Each of the three pens here holds up to forty sows. Each pen has an automated self-feeder in the center; it looks like another kind of crate but with gates on each end. It holds one sow at a time. Wayne explains how it works: "The sows are all tagged with an electronic chip. When one goes in there, that machine reads the chip and it tells whether or not she's had her feed for the day. They're allowed so many pounds. They can go through there until they've eaten their daily quota." The purpose, he says, is to make sure that every sow gets to eat her ration at her own speed.

We move on past the pens of pregnant sows and down a corridor. We stop at a steel door with a small window. Wayne motions for us to

take a look. It's the room where the herd manager collects semen from the boar. We ask the obvious question: "How do you collect sperm from the boar?" Wayne is all business: "We use a steel dummy." He leads us a few steps to a dusty, windowless cubby hole just off the corridor. It is about seven or eight feet square and empty except for a low steel bench with a rubber mat under it. "There's the dummy. Some of the boars will jump right on that and ride it and ejaculate. And others won't. You have to use a sow. The herdsman catches the semen in a thermos with a gloved hand. He'll extend the semen so that one ejaculation can make about twenty doses of semen. Once again, it's an economic thing. It gives us more use of that one boar, instead of having to feed so many boars. But it goes beyond that. We can change our genetics faster than we could if we had a stable of twenty or twenty-five boars. It's better to have one really good boar and use his semen."

Next stop is the nursery—that's the industry term for a place where early-weaned pigs are given special feed to enable them to survive the stress of separation and weaning. Each of the pens contains a few dozen small pigs. We ask him how the pigs handle the stress of weaning. "Oh, there really isn't much that happens. The first day they just kind of lay around. Whenever you come in the building, they grunt and make a lot of noise because they are used to having mama around."

We get back in the truck and go to another farm where Wayne has a finishing building, where the pigs are grown to market weight. Along the way, we talk about the changes in farming we've both seen over the years. He mentions the loss of middle-income people in the rural areas around him. Now, he says, "We've got a bunch of people that are looking for \$150-a-month houses to move into. They're making meth and they're making trouble. The rural countryside has changed dramatically." (Making methamphetamine, in Iowa? At the time, we thought Wayne must have been exaggerating, but when we checked it out, we found that Iowa has the second highest number of meth labs and the fourth highest level of meth use in the nation.¹⁸ Is that a consequence of the loss of family farmers too, we wondered?)

The conversation drifts to the price of corn and subsidies. Wayne thinks that years of government subsidies have kept corn artificially cheap for livestock producers. "We've been producing grain below the cost of production for so many years that it's just a given. It's a guarantee. If we'd gotten corn prices up to where they ought to be, a lot of this

livestock thing never would have happened. It's been on the back of cheap grain. I don't know how you change that."

We have reached the finishing building. It's open on both sides. Running the length of the building on each side is a plastic curtain he can roll up and down to adjust temperature and ventilation. "Let's open the door just to give you a whiff of the air quality." We step through to the pens. On this mild spring day, a breeze is blowing over the pens full of pigs. It is total confinement, but with a breath of semi-fresh air. "If it's thirty below zero outside, these curtains will be closed and the furnace will be running a bit. These old pigs here'll be all stretched out and as comfortable as if they were in the Bahamas."

We ask him about drugs and medications administered to these pigs. He says that this is "one of those deals that gets misrepresented. People think we're feeding a lot of antibiotics out here. Our whole goal is not to feed a lot of them because they cost us money." He explains that when he first brings pigs into a finishing building he gives them a dose of the antibiotic tetracycline in their feed "just to give them something for the stress in moving them." Then he puts them on "a growth promotant called BMD, bacitracin something something. I can't tell you what all is in it. It helps them grow faster and that's the name of the game." (He's referring to Bacitracin methylene disalicylate, another antibiotic.) If the pigs develop diarrhea or "a cough or a problem," they give them an antibiotic or other medication, usually in the water. "A pig will drink when they won't eat," he explains.

Our tour is over and it's time to leave. We're sitting in Wayne's pickup truck in the driveway back at his home. He emphasizes again how he wants to get the right story out there. "What really concerns us in animal agriculture is that we've been made out to be the bad guys. We're working hard to produce a quality product and we're treated like we're just... well, terrible people. It doesn't go down well in the ag community."

We don't think he's a bad guy. He worked hard to buy the farm from his parents and brothers—a farm that had been in the family for a century—and he found a way to keep it going when most family pig farms were going out of business. We like the fact that he doesn't keep his pregnant sows in crates—probably the least defensible aspect of standard pig confinement practices in America. We particularly admire his openness about what he is doing, a refreshing contrast to all the other intensive pig

producers we contacted. His method of disposing of his manure seems more responsible than that of many pig producers. We appreciate that his buildings keep his pigs warm in the cold Iowa winters. But we wondered if there couldn't be a way of keeping them warm and giving them a better life than they can have living in an environment as barren and restrictive as his total confinement buildings.

When we sent Wayne what we had written about our visit, in addition to asking not to be identified and making a few other minor suggestions, he and Mrs. Bradley wrote that they thought our final sentence—the one you have just read—made “no sense.” Instead they suggested a different way of ending our account of our visit to their farm. Here it is, with their original underlining. You be the judge.

Raising pigs today is so much improved over methods used by our great-grandparents, and the meat that we consume is so much leaner and healthier for us to eat! The highest-quality standard of ‘the other white meat’ is the goal of USA pork production in the 21st century. Let’s thank the American farmer for a solid science-based industry that includes good animal care while being good stewards of the environment. Let’s enjoy that pork chop hot off the grill, or that pork roast with potatoes and carrots, because there’s no safer food source than USA-raised pigs for the pork consumers in the USA and other countries which import our pork!

PROFITABILITY AND ANIMAL WELFARE

The real ethical issue about factory farming’s treatment of animals isn’t whether the producers are good or bad guys, but that the system seems to recognize animal suffering only when it interferes with profitability. The animal industry always says that producers take care of their animals because what is good for the animals is good for the producer. Professor Bernard Rollin, who has taught veterinary ethics at Colorado State University for almost thirty years, has given a graphic example of how profitability and animal welfare can pull in opposite directions. A veterinarian was visiting a 500-sow, “farrow to finish”

swine operation with three full-time employees and a manager. He noticed that one of the sows in the gestation crates had a hind leg sticking out at an odd angle. When he inquired, he was told “She broke her leg yesterday, and she’s due to farrow next week. We’ll let her farrow in here, and then we’ll shoot her and foster off her pigs.” The vet was troubled by the idea of leaving the sow for a week with a broken leg and offered to put the leg in a splint, charging only the cost of his materials. He was told that the operation could not afford the manpower involved in separating and caring for the sow. At this point, the vet, who had been brought up on a family pig farm where the animals had names and were treated as individuals, realized that “confinement agriculture had gone too far.”¹⁹

Is this an extreme case, or common practice? The cost calculations that Wayne made when discussing the possible use of a local anesthetic to reduce the pain of operations like castration—“there’s not a dollar a pig to throw away”—show that this kind of thinking is built into intensive animal raising. As long as the market provides no incentive for reducing the pigs’ pain, the pig producer cannot afford to spend more than a penny, or perhaps a nickel, for that purpose. If he does, someone else who won’t spend anything to reduce pain will produce cheaper pigs and put him out of business. That is why the way that factory farming treats animals is not so much a problem of gratuitous cruelty or sadism, and the main problem is not a matter of preventing isolated incidents of animal abuse. The core issue is the commercial pressures that exist in a competitive market system in which animals are items of property, and the conditions in which they are kept are not regulated by federal or state animal welfare law.

TRACKING DOWN JAKE’S MILK

Jake thought that she was buying milk from local farms because Coleman Dairy, the brand she bought at Wal-Mart, is an Arkansas-based corporation. When we called and asked if we could see their cows, however, Walt Coleman told us that they hadn’t had any cows since 1935. They buy their milk from Dairy Farmers of America, a big dairy cooperative, and although some of their milk comes from Arkansas, it can also come from Texas or New Mexico. Coleman

wasn't willing to help us any further in our quest to see the source of Jake's milk.

Milk and cheese production enjoy a better reputation than other forms of intensive farming, and the dairy industry is keen to keep it that way. In advertisements for dairy products, it's common to see cows enjoying acres of rolling green pasture, often with their calves nearby. The impression many consumers get is that dairy cows lead natural lives, and we humans merely take the surplus milk that the calf does not require. People also think that cows are placid animals without much of an emotional life. Both are misconceptions. Cows have strong emotional lives. They form friendships with two, three, or four other cows, and, if permitted, will spend most of their time together, often licking and grooming each other. On the other hand, they can form dislikes to other cows and bear grudges for months or even years.

More remarkably still, cows can get excited when they solve intellectual challenges. Donald Broom, professor of animal welfare at Cambridge University, set cows a problem—to work out how to open a door to get some food—while measuring their brainwave patterns. When the cows solved the problem, Broom reported, “Their brainwaves showed their excitement; their heartbeat went up and some even jumped into the air. We called it their Eureka moment.”²⁰

Peter Lovenheim is a writer who lives in Rochester, New York. He was standing in line at McDonald's one day when he decided that he'd like to know more about how a hamburger is produced. He bought three newborn calves and had them raised in the usual way until it was time to slaughter them. Because Rochester is close to many of New York State's dairy farms—and New York is the third largest dairying state in the U.S., after Wisconsin and California—Lovenheim bought male calves from a nearby dairy farm. Most males born to dairy calves are raised for veal, or slaughtered immediately for pet food, but a few of the stronger ones are raised for beef. Thanks to Andrew and Sue Smith, who were remarkably open about what they do, Lovenheim was able to spend a lot of time at Lawnel Farm, and the following account draws on his description of Lawnel when he was there in 2000.²¹

With about 900 cows being milked—that doesn't include young cows who were not yet giving milk, nor cows who were temporarily not lactating—Lawnel was a medium-sized dairy operation, larger than some of the organic farms we will describe in Part II but small compared

to, say, Bill Braum's dairy near Tuttle, Oklahoma, which milks over 10,000 cows, or Threemile Canyon in Oregon, which milks 18,000 cows.²² A Cornell University study expects the number of dairy farms in the United States to decline from 105,000 in 2000 to 16,000 in 2020, while the number of cows per farm and the total milk production both increase.²³

At Lawnel, the cows were kept indoors, in barns. Unlike many dairy farms, they were free to walk around inside the barn—they were not in “tie-stalls” that confine cows, for most of the year, to a single stall where they are fed and milked. In the western United States, dairy cows are more likely to be kept outside, but even then they are just in dirt lots. Very few dairy cows in the U.S. get to graze in the grassy meadows typical of dairy industry advertising—the exceptions are mostly cows producing milk certified “organic,” but, as we shall see, even some of them are not on pasture.

The modern dairy cow has been bred to produce as much milk as possible and now produces more than three times as much milk as a typical dairy cow did fifty years ago.²⁴ The result is considerable stress on the cow's body. To increase milk production still further, the Smiths gave their cows injections, every other week, of BST, or bovine somatotrophin, a genetically engineered growth hormone. BST is banned in Canada and in the European Union because of concerns for the health and welfare of dairy cows, but it is widely used in the United States. It increases milk production by about 10 percent, but the site of the injection may become swollen and tender. BST can also increase problems with mastitis, a painful udder infection that afflicts about one in six U.S. dairy cows.²⁵ Sue Smith said she didn't like giving the injections, but “If we're making more milk and it's profitable, it's something we should be doing.”²⁶

Like human females, dairy cows do not give milk until they have given birth, and their milk production will begin to decline some six months after the birth. So after they reach maturity they are made pregnant by artificial insemination roughly every year. Normally a calf would suckle from its mother for six months, and the bond between mother and child would remain strong during that period, but dairy farms are in business to sell milk, not give it to calves. At Lawnel Farms, Lovenheim watched a cow give birth and begin to lick her calf, but forty minutes later a farmhand came and took the calf away. The cow sniffed the straw where the calf had been, bellowed, and began to pace around. Hours later she was

sticking her nose under the gate to the barn in which she was confined, bellowing continuously. Meanwhile her calf was in another part of the farm, lying shivering on a concrete floor. Within a few days he was dead, and his body was lying on the farm's compost pile.²⁷

Oliver Sacks, who writes about people with unusual neurological conditions, spent some time with Temple Grandin, the livestock consultant McDonald's has employed to advise them on animal welfare issues. Sacks was more interested in Grandin's autism than in her work with animals, but he accompanied her on a visit to a dairy farm. As Sacks describes it: "We saw one cow outside the stockade, roaming, looking for her calf, and bellowing. 'That's not a happy cow,' Temple said. 'That's one sad, unhappy, upset cow. She wants her baby. Bellowing for it, hunting for it. She'll forget for a while, then start again. It's like grieving, mourning—not much written about it. People don't like to allow them thoughts or feelings.'"²⁸ John Avizienius, the senior scientific officer in the Farm Animals Department of the RSPCA in Britain, says that he "remembers one particular cow who appeared to be deeply affected by the separation from her calf for a period of at least six weeks. When the calf was first removed, she was in acute grief; she stood outside the pen where she had last seen her calf and bellowed for her offspring for hours. She would only move when forced to do so. Even after six weeks, the mother would gaze at the pen where she last saw her calf and sometimes wait momentarily outside of the pen. It was almost as if her spirit had been broken and all she could do was to make token gestures to see if her calf would still be there."²⁹

Female dairy calves may be reared as replacements for the "culled" cows who get sent to slaughter. Although the natural lifespan of a cow is around 20 years, dairy cows are usually killed at between five and seven years of age, because they cannot sustain the unnaturally high rate of milk production. Male calves who survive are sent to auction at an age when they can barely walk. Temple Grandin has strong views about that, too: "Worst thing you can do is put a bawling baby on a trailer. It's just an awful thing to do."³⁰

The usual options for these male dairy calves are, as already mentioned, to be slaughtered immediately or to be raised for "milk-fed" veal. From the calf's point of view, immediate slaughter is the better fate, for it spares him 16 weeks of confinement in semi-darkness, in a bare wooden crate too narrow to turn around. He will be tied at the neck,

further restricting his movements. Already stressed by separation from his mother and unable to mingle with others of his kind, he will be fed only "milk replacer," a liquid mixture of dried milk products, starch, fats, sugar, antibiotics, and other additives. This diet is deliberately so low in iron that he will develop subclinical anemia. That's what the veal producer wants, because it means that the calf's flesh, instead of becoming the normal healthy red color of a 16-week-old calf on pasture, will retain the pale pink color and soft texture of "prime veal." Bought mostly by expensive restaurants catering to gourmet tastes, that kind of veal fetches the highest price. For the same reason, the calf will be denied hay or straw for bedding—if he had it, his desire for roughage and something to chew on would cause him to eat it, and since it contains iron, that too would change the color of his flesh. The wooden stalls and neck tether are part of the same plan. If the stall had iron fittings, he would lick them, and if he were able to turn around, he would lick his own urine—again, in order to satisfy his craving for iron.

Apart from the separation of cows from their calves and the way the newborn male calves are treated, the most disturbing passages in Lovenheim's description of Lawnel Farm portray the treatment of "downers"—cows who, through illness or accident, are no longer able to stand. On one occasion Lovenheim saw Sue Smith trying to raise a downed cow, No. 4482. She started by coaxing her with gentle words, but when that didn't work she twisted the stump of the cow's tail, then jabbed her knee into the cow's side and screamed into her ear. When that met with no success she twisted the cow's ear and jabbed her several times in the ribs with an electric prod. That didn't work either. If a downed cow can't be raised, she is dragged out. So they called Bill, a renderer, to take the cow away. Lovenheim describes what happened next: "Andrew gets on a small tractor and backs it through the barn door while Bill ties a sling around 4482's front right hoof. When the sling is attached to the tractor, Andrew reverses direction, dragging the downed cow thirty or forty feet across the barn door, her useless back feet spread wide, her left front hoof kind of paddling along to keep up." (While this was going on, Andrew and Bill discussed what crops the farm had planted that season.) Once out of the barn, Bill winched the cow up a steeply inclined ramp into the back of a truck that took her to the slaughterhouse. After watching this, Lovenheim asked Sue if she had ever considered euthanizing downed animals on the farm. She told him that they'd done that once, but the procedure was expensive.³¹

Manure from dairies, like that from chicken and pig factory farms, pollutes rivers, kills fish, and ruins the homes of nearby residents. Another pollution problem, more specific to cows, is often treated as a joke. When cows ruminate, or “chew the cud,” they produce gases called “volatile organic compounds.” (For those who like anatomical details, most is generated in burps rather than farts.) When there are a lot of cows, that makes for a lot of gas and can cease to be a joke. The San Joaquin Valley, part of California’s Central Valley and one of the world’s richest agricultural regions, ranks alongside Houston and Los Angeles as having the worst air pollution in the United States. Over the last six years, the valley has violated the federal limit on ozone smog over an eight-hour period more often than any other region in the country. Officials from the San Joaquin Valley Air Pollution Control District believe that the valley’s 2.5 million dairy cows are the biggest single source of a major smog-causing pollutant and are trying to force the dairy industry to do something about it. Other gases are emitted by cow manure and the lagoons in which it is stored. The dairy industry is resisting proposals for change. Tom Frantz, who says he has developed asthma as a result of dairy farms moving near to him, heads a group called the Association of Irrigated Residents that is calling for stricter regulation. Frantz says: “Ag hasn’t been regulated in the past, but times are changing. Our lungs will not become an agricultural subsidy.”³²

The problem isn’t only one for local residents, either. The gases contain methane, which contributes significantly to global warming. In that respect we are all subsidizing agriculture.

THE BEEF INDUSTRY

By a curious coincidence, about the same time that Peter Lovenheim in New York was buying calves in order to follow the process of turning a calf into a hamburger, Michael Pollan, another writer, was doing much the same thing in the Midwest. Lovenheim’s calves were byproducts of the dairy industry and were raised by a dairy farmworker and his wife who kept about a dozen cattle on the side. Pollan bought a young steer—a castrated male—from a ranch in South Dakota and had him fattened alongside 37,000 other cattle on a feedlot in Kansas. The dairy industry that Lovenheim observed is the source of about half of the hamburger

meat served at the fast-food restaurants Jake likes to frequent. The beef industry that Pollan portrays is where most of America’s 36 million beef cattle are produced every year and is the likely source of the porterhouse steak she buys at Wal-Mart.

Pollan’s calf, known as 534, was born in March. The calf remained with his mother for more than six months, part of a herd that had many acres of prairie pasture on which to graze. He wasn’t even weaned until October. But it was all downhill from there. The young steer was loaded into a truck and driven 500 miles to Pokey Feeders where, in Pollan’s words, “Cattle pens stretch to the horizon, each one home to 150 animals standing dully or lying around in a grayish mud that, it eventually dawns on you, isn’t mud at all.” When Pollan visited, he could smell a “bus-station-men’s-room” odor more than a mile before he got there. Here 534 lived another eight months, until slaughter.³³

On arrival at the feedlot, 534 was given an implant of a synthetic hormone in the back of his ear—something similar to the muscle-building testosterone surrogates that athletes use. Giving them to cattle is banned in Europe because of concerns about the potential health risk of drug residues, and of course U.S. law prohibits people from self-medicating with steroids. In the U.S., however, giving them to cattle is standard practice. It makes them put on more muscle, which means more money for the growers. When Pollan asked Rich Blair, the rancher from whom he bought 534, what he thought about the hormone implants, Blair said: “I’d love to give up hormones. The cattle could get along better without them. But the market signal’s not there, and as long as my competitor’s doing it, I’ve got to do it, too.”

Instead of grass, 534 now ate corn kernels, together with a daily dose of antibiotics to enable him to survive on this diet. Dr Mel Metzen, the staff veterinarian at Pokey Feeders, told Pollan that a great many of the health problems that he and his eight assistants have to deal with stem from the diet. “They’re made to eat forage,” Metzen says, “and we’re making them eat grain.” Ruminant animals have a digestive system that has evolved to break down grass. If they don’t get enough roughage, they develop lactic acid in their rumens, which creates gas and causes “feedlot bloat,” a condition so severe that cattle can suffocate from it. Liver abscesses are also frequent. Putting cattle on a corn-based diet is like putting humans on a diet of candy bars—you can live on it for a while, but eventually you are going to get sick. For the beef producer

that doesn't matter, as long as the animal doesn't drop dead before being slaughtered. By feeding antibiotics on a daily basis, the risk of that happening is reduced to manageable proportions—and it is a risk worth taking, because the cattle reach market weight in fourteen months, rather than the eighteen months to two years they would otherwise take. Without antibiotics, Metzen admitted, it wouldn't be possible to fatten cattle on corn. "Hell, if you gave them lots of grass and space," he joked, "I wouldn't have a job."

Corn isn't the only strange food that cattle are fed. When mad cow disease became a major issue in Europe, the public was surprised to learn that it was caused by cattle eating the remains of sheep who had been infected with a related disease. Since when, people asked, do cattle eat meat? In fact, slaughterhouse leftovers have been going into cattle feed for about forty years, because they are cheap and add protein to the diet. In the wake of the mad cow disaster, most countries placed restrictions on feeding meat remnants to cattle, but in the U.S. it is still, at the time of writing, permitted for cattle feed to contain beef blood and fat, as well as gelatin, "plate waste"—restaurant leftovers—chicken and pig meat, and chicken litter—which includes fecal matter, dead birds, chicken feathers, and spilled feed. The spilled feed can include the same beef and bone meal that is not allowed to be fed to cattle directly, but can be fed to chickens.

In January 2004 the Food and Drug Administration announced plans to ban blood, plate waste, and chicken litter, and an international review panel convened by the Secretary of Agriculture recommended banning all slaughterhouse remnants, two years later, none of these proposed bans had come into effect. Frustrated at the delay, scientists and McDonald's Corporation told the FDA that stronger steps were needed to stop mad cow disease, which the researchers called "an insidious threat." McDonald's Vice-President Dick Crawford called on the government "to take further action to reduce this risk."

One of the reasons for the delay, according to Stephen Sundlof, Director of the FDA's Center for Veterinary Medicine, was that the proposed ban on the use of chicken litter generated "huge concern" from chicken producers. No wonder—about a million tons of chicken litter are disposed of by being fed to cattle each year. That means that, on average, each of the 36 million cattle produced in the U.S. has eaten 66 pounds of it. In other words, environmental problems created by the

chicken industry are preventing the FDA from taking steps recommended by public health experts to ensure the safety of U.S. beef.

The feedlot system is also an ecological disaster. When we eat ruminants who have been grazing on pasture, we are, in effect, harvesting the free energy of the sun. But feedlots thrive because in the U.S. bulk corn sells for about 4 cents a pound—less than the cost of production, thanks to the billions of taxpayers' dollars the government gives in subsidies to the growers. (Most of the cash goes to people who are already very wealthy.) The corn in turn requires chemical fertilizers, which are made from oil. So a corn-fattened feedlot steer is, as Pollan says, "the very last thing we need: a fossil-fuel machine." Pollan asked David Pimentel, a Cornell ecologist, to calculate how much oil went into fattening 534 to his slaughter weight of 1,250 pounds. Pimentel's answer: 284 gallons.

Then there is the issue of what happens to the run-off from the feedlots. Nebraska is *the* state for big feedlots, with 760 of them authorized to have more than 1000 head of cattle. The largest, near Broken Bow, is licensed for 85,000 cattle. Alan Kolok, a professor of biology at the University of Nebraska, is studying the impact of feedlots on streams that flow into the Elkhorn River. We met him in Omaha, and he drove us west into Cuming County, one of the nation's top beef-producing counties. Near West Point, we came to a feedlot for about 5,000 cattle—the usual fenced, bare, dirt-and-manure yards with bored-looking cattle standing in the sun. It was June, and although it wasn't especially hot yet, we remarked on the lack of shade, saying to Alan that if any had been provided, most of these cattle would have been standing in it. He said that the weather was going to get hotter. Indeed, by the end of July, much of Nebraska had had 30 days with temperatures above 90 degrees, and several above 100. Roxanne Bergman, who runs a "dead-stock removal" company in Clearwater, said her company alone had hauled out 1,250 dead cattle during a few days of hot weather and could not handle all the calls it was receiving.³⁵

Researchers from the Department of Animal Science and Food Technology at Texas Tech University studied the use of shade in feedlots. The study divided cattle into a group that had shade available and one that did not have shade available. The cattle with shade available "used the shade extensively" from 9.00 A.M. to 5.30 P.M., following the shade as the sun moved. Cattle without shade were four times as aggressive to other cattle than those with shade. But the researchers also noted that

“In west Texas, shade is generally not used in commercial feedlots because it is not thought to be cost effective.”³⁶ Once again—and not only in west Texas—when better animal welfare costs money, animal welfare loses.

Alan showed us how the feedlot we were looking at had been built right down to the edge of the north fork of Fisher Creek. A holding lagoon built to catch the feedlot run-off, filled with unpleasant-looking brown water, was separated from the creek by an earth embankment. Alan explained that in heavy rain, it was likely that polluted water would run off from the feedlot into the creek, or could seep through the embankment into the creek. We drove on and came to another feedlot on sloping land not far from the Elkhorn River. Here Alan has found local fish, fathead minnows, showing signs of altered sexual features. As compared with fish captured near a wildlife refuge where there are no feedlots, the male minnows had less pronounced masculine features and females had less pronounced feminine features. This phenomenon is known as “endocrine disruption.” If fathead minnows are altered, the same could happen to fish used for recreational fishing, like bass and catfish, and the Nebraska Department of Game and Parks is concerned about the problem. Alan and his colleagues have published studies hypothesizing that the most likely explanation is the steroids implanted in the feedlot cattle. The cattle excrete them, and when it rains they wash off into the rivers, where they have a half-life of 6 to 12 months.³⁷

Although Nebraska livestock producers say that their state has some of the strictest regulations in the nation, there is very little enforcement of regulations regarding feedlots. In addition to its 4,560 cattle feedlots, Nebraska has thousands of confined pig units, and of course egg and chicken producers as well. In 1999, the Nebraska Department of Environmental Quality stated that there were 25,000 to 30,000 hog and cattle feeding operations in the state, most of which had never applied for permits from the agency, although state law had required permits since 1972. Even if these pig farms and cattle feedlots had applied for permits, the Department simply would not have had the staff to inspect more than a small fraction of them. In 1997, the Department’s director testified that he had a staff of five for issuing permits and inspecting livestock-feeding operations and that they “tried” to inspect 225 of the larger operations.³⁸

It’s not unusual in the U.S. for state departments to lack the resources

to monitor water pollution. Idaho, it seems, is in a similar position to Nebraska. Mike Bussell, director of the Environmental Protection Agency’s regional office of compliance and enforcement, said that his office was going to have to start inspecting feedlots in Idaho because the Idaho State Department of Agriculture was “never able to accomplish” the basic task of producing an “overall inventory of the regulated community, so we’d know how many operations we were dealing with, and who needs to comply.”³⁹ In Michigan, according to a regional Environmental Protection Agency report, the Department of Environmental Quality “does not conduct inspections to determine compliance by CAFOs (Concentrated Animal Feeding Operations) with permit application and other program requirements.”⁴⁰

If the untreated waste from feedlots doesn’t flow directly into the streams and rivers, it will be sprayed onto fields through a center-pivot irrigation system. Manure is wet and costly to transport, so it is spread on fields close to the animal feeding operations, often in quantities too great for the soil to absorb, and in heavy rain, it runs off into the creeks. (The method of working it into the soil used by Wayne Bradley in Iowa isn’t widespread because it takes more labor.) In 2002, the Nebraska Department of Environmental Quality sampled about 5,000 of the state’s more than 16,000 miles of rivers and streams and found that pollution exceeded the standard for uses like recreation, aquatic life, agriculture, and drinking supply in 71 percent—a significant jump on the already alarming 58 percent found to be polluted in 2000.⁴¹ Dennis Schueth, who manages the Upper Elkhorn Natural Resources District, told Nebraska Public Radio Network reporter and author Carolyn Johnsen: “We can be more environmentally sound if we want to pay more for our food.”⁴² Right. But what mechanism is supposed to bring about that outcome? Even if Jake and Lee were willing to pay more for their meat in order to protect the environment in Nebraska, how could they be sure—or even reasonably hopeful—that the extra dollars they were spending were having this effect? In later chapters we’ll consider some possibilities.

As we drove back along Route 275 near West Point, Alan pointed out dozens of big containers of anhydrous ammonia—a synthetic nitrogen fertilizer. “Isn’t it odd,” he asked, “that all this synthetic fertilizer is being used in the midst of a feedlot region, where there is all this much better natural fertilizer available?”

AUSTRALIAN BEEF

Raising beef doesn't have to be like this. On a visit to Australia, we met Patrick Francis, the editor of *Australian Farm Journal*, a popular farming magazine. Patrick had heard of our interest in ethical farming and invited us to look at the small beef property—in America it would be called a ranch—that he ran with his wife Anne near Romsey, in Victoria. The property was a delight to stroll around, in part because Patrick and Anne have set aside 20 percent of the land for revegetation, mostly with native eucalypts. The straightest trees will, in time, be sold for timber, but meanwhile, by storing carbon, they are making a small contribution to mitigating global warming. A recent carbon balance calculation showed that each year the farm was absorbing from the atmosphere 220 tons more carbon dioxide than it was emitting. The plantations also provide habitat for native animals, including a mob of gray kangaroos who hopped away as we strolled by. Meanwhile, in the open fields, the cattle made a remarkable contrast to the dusty, manure-caked animals we saw in the bare Nebraska feedlots.

It was mid-April, the southern hemisphere autumn, and there had been little rain for months, but Patrick rotates his cattle around different fields every week or two, a technique that gives the grass time to recover from grazing and ensures healthy soils and well-grassed pastures. This method eliminates the need to conserve fodder—Australian winters are mild and free of snow, and there is enough grass in the fields for the cattle to eat all year round. The rotation makes for thick pastures, which eliminates the need to use pesticides for weed control.

The day we were there coincided with one of those rotations, and we watched as Patrick moved the cattle on to the next field. He has a way of calling his cattle to him, and they follow where he leads. First among them is a particularly affectionate seven-year-old bullock—a term used for an older steer—who Patrick has kept on the farm for his leadership role in showing the newer cattle on the property what to do. (His flesh, by now, would be too tough for anything but hamburger.) The day was pleasant, and the sun had lost the sting it has at the height of summer, but once the cattle had moved into the new pasture, they soon found the shade cast by a row of cypresses, and most of them stood under the trees. Though the youngest calves were six months old, they were still keeping company with their mothers. The lives of these cattle were, it

seemed, entirely comfortable. They had what cattle need: plenty of grass, clean water, shade, and their own social group.

Patrick told us that he prefers to sell his cattle direct from the farm to the slaughterhouse, but there are times of the year when he doesn't have enough grass on his pasture to get them ready to market. Then he sells them to a feedlot for short-term fattening. For the Australian domestic market, only about 25 percent of cattle are fattened in feedlots, although that percentage is growing because supermarkets prefer the greater reliability of the quality of the meat. Nevertheless, most Australian cattle are fed for only 70 days, less than half the normal period in feedlots in the U.S. For export markets—predominantly Japan and Korea, with a small amount going to the United States—cattle are generally fed for about 150 days, because consumers there have developed a taste for the marbled, fattier meat that results from fattening cattle largely on grain for a longer period of time.

SLAUGHTER

Mammals killed for food in the U.S.—unlike chickens, ducks, and turkeys—are required by law to be stunned before being killed. No, that's not quite right: the U.S. Department of Agriculture ludicrously classifies rabbits as poultry, although they are mammals, thus allowing producers to avoid the legal requirement to stun them before slaughter. Temple Grandin surveyed American slaughterhouses to find out what percentages of animals are rendered insensible by the first application of the stun-gun. In her first survey, in 1996, only 36 percent of slaughterhouses were able to effectively stun at least 95 percent of animals on the first attempt. Six years later, 94 percent were able to do so. That is a dramatic improvement, and, as we will see in the next chapter, there is a reason for it.

Nevertheless, as a General Accounting Office report to Congress on the enforcement of the Humane Methods of Slaughter Act acknowledges, despite the improvement, setting a standard of only 95 percent of animals being stunned on the first attempt “still indicates that hundreds of thousands of animals were not stunned on the first try . . . Thus, there may be undetected instances of inhumane treatment.” The report notes that there were “approximately six observations for HMSA compliance

per month, or less than two observations per week, for each of the 918 plants that are covered by the act.” In other words, with hundreds of animals being killed every hour, the inspectors are rarely present. When they are there, the plant operator knows it, and so what the inspectors observe may not be representative of what happens when they are absent. Even when inspectors are present and do find violations, the report found that enforcement polices were inconsistent and “inspectors often do not take enforcement action when they should.”⁴³

A video taken by an undercover investigator at AgriProcessors, Inc. in Postville, Iowa, during the summer of 2004 shows what can happen when inspectors are not present. AgriProcessors, Inc. is a kosher slaughterhouse, which means that it kills animals in accordance with orthodox Jewish dietary law, which forbids stunning before slaughter. In theory, in kosher slaughter animals should be killed quickly and cleanly by having their throats cut with a single slash of a sharp knife. Unconsciousness from loss of blood to the brain should follow within a few seconds. In the video, however, cattle who have had their throats cut and their tracheas removed still thrash around for a long time before they die. Some struggle to get to their feet—and even succeed in standing up. While this happens, a worker waits for the animal to collapse so that he can tie a chain around its rear leg and hoist it off the ground. One animal goes so far as to stagger through an opening into a different area of the slaughterhouse before collapsing. Two more cattle come down the killing line and have their throats cut before this one is finally hoisted off its feet and dragged away.⁴⁴

We are not suggesting that these scenes are typical of kosher slaughter, or of American slaughter in general. But it is worth noting that AgriProcessors is the world’s largest kosher slaughterhouse, and its owner has stated that “What you see on the video is not out of the ordinary.” Similarly, the Orthodox Union, the world’s largest kosher certifier, has defended the plant consistently and has said that the plant meets “the highest standards of Jewish law and tradition” and that its kosher status has never been in jeopardy.⁴⁵

Since inspectors are not assigned to the point of kill in any U.S. slaughterhouses, it is probable that anyone who eats meat will, unknowingly, from time to time be eating meat that comes from an animal who died an agonizing death.

CAN BIGGER GET BETTER?

It’s not surprising that Jake likes McDonald’s—so many people do that it has become the world’s largest restaurant chain, with 31,000 restaurants in 119 countries. But it is also not surprising that when French farmer José Bové wanted to protest against globalization and the Americanization of French culture, he chose a McDonald’s restaurant to drive his tractor through. The Golden Arches have become a symbol of America—and to many, a symbol of everything that is wrong with America. Food, architecture, cultural or economic imperialism—you name it, if it is American and you don’t like it, you can protest about it at your local McDonald’s.

Reality, as always, is more complicated. Consider McDonald’s record on animal welfare. Ray Kroc, McDonald’s founder, had a reputation for implacably tough management. “What do you do when your competitor is drowning?” he is said to have asked, then answering himself: “Get a live hose and stick it in his mouth.”¹ So when, in the early 1990s, a New York animal activist named Henry Spira decided to try to pressure McDonald’s into developing less inhumane ways of raising the animals, he knew it wasn’t going to be easy. Spira was essentially a one-man-band, running an organization called Animal Rights International that had no paid staff and no office except the modest, rent-controlled New York apartment in which Spira lived. But Spira knew what it was like to take on the big boys. He had been involved in the civil rights movements in the South in the 1950s and 1960s. As a sailor in the merchant marines, he had been part of a reform group battling a corrupt