



Carni-Catastrophe: Disease cost, \$500 billion

There are many subsidies to the meat industry, but the biggest break it enjoys by far comes inconspicuously via the federal Animal Welfare Act, which does not apply to animals raised for food. The states only minimally take up the legal slack, allowing cruelty and abuse of farm animals to be the norm. If farmers were forced by law to give their animals truly humane living quarters, such as spacious environments, clean surroundings, fresh air, sunlight, and companionship-if it were illegal simply to administer drugs to animals who would otherwise die from the conditions they live in-cheap fast food could never exist. Time and again, the industry fights proposed measures designed to ameliorate conditions for farm animals, even slightly, because they would cost it literally pennies more per animal. Ultimately, low prices have allowed demand to stay high and the industry to grow. Virtually all of the over 8 billion animals slaughtered for food in the U.S. every year are the product of a swift-moving assembly-line system, incorporating dangerous, unprecedented, and unsustainable methods of efficiency.

Farming in the U.S. has been allowed over the last generation to grow into a grim corporate monstrosity, the scale of which is hard to comprehend or even to believe.

2 When the Clean Water Act went into effect in 1972, agriculture as a source of pollution was overlooked. The EPA has identified agricultural runoff as a primary pollution source for the 60 percent of rivers and streams considered "impaired." A 1997 Senate report said that every year, U.S. livestock produce 10,000 pounds of solid manure for every U.S. citizen (see #22). **3** After reviewing 4,500 scientific studies and papers on the relationship between cancer and lifestyle, a team of 15 scientists sponsored by two leading cancer research institutions advised that those interested in reducing their risk of many types of cancer consume a diet that is mostly fruits, vegetables, cereals, and legumes. They declared that up to 40 percent of cancers are preventable, with diet, physical activity, and body weight appearing to have a measurable bearing on risk.

According to the Food and Agriculture Organization of the United Nations, two-thirds of the world's major fishing grounds and stocks are now exhausted or seriously depleted. Fishers, using modern techniques such as sonar, driftnets, bottom-fishing super trawlers, longlines, and floating refrigerated fish-packing factories, are ultimately not only putting themselves out of business but rapidly destroying ocean ecosystems. Early in 1998, 1,600 scientists from around the world declared that the oceans were in peril. They warned that swift action is imperative to prevent irre-

> versible environmental degradation (see #92).

5 The Humane 5 Slaughter Act requires that an animal be rendered unconscious with one swift application ice before slaugh-

of a stunning device before slaughter. In today's slaughterhouse this requirement can easily be violated, thanks to increasingly fast line speeds that result in animals being cut up while fully conscious. Spedup conveyor belts produce more profits for packing plants, but the cost is borne by the animals and by the laborers who have to work on the petrified creatures as they fight for their lives. And for birds (not legally recognized as animals), "humane" preslaughter stunning is not administered (see #72).

6 Cardiovascular disease and canbillion every year. Although smoking, lack of exercise, heredity, and environmental exposures are other causative factors, these diseases are inexorably linked to diets high in calories (meat), high in saturated fat (meat), and low in fiber (meat).

7 It might be easy on your conscience to consume the flesh of a creature perceived to be stupid, dirty, and brutish. It may be surprising to some, however, that pigs are highly intelligent. Ask Professor Stanley Curtis of Pennsylvania State University. He taught several pigs to understand complex relationships between actions and objects in order to play video games. Curtis, along with his colleagues, found pigs to be focused, creative, and innovative, equal in intelligence to chimps.

8 Conservative industry figures for feed-to-flesh ratios are 7:1 for cattle, 2.6:1 for pigs, and 2:1 for chickens. Many factors, however, can influence feed conversion. By virtually all accounts, eating food derived from animals is wasteful. And when the industry does accomplish more efficiency, improvements usually come at the expense of the animals, via genetic tinkering and growth-enhancing drugs.

Oof the 36 million pounds of antibiotics used annually for all purposes in the U.S., 70 percent are administered to healthy animals to make them grow faster on less feed. Though perfectly legal, the practice is promoting the selec-

DEDICATION

"101 Reasons Why I'm a Vegetarian" is dedicated to my husband, Alan Rice, who maintains a constant flow of valuable reference material streaming my way—without which this "mighty convincer" would be a lot less convincing.—Pamela



Antibiotics: Farm animal growth stimulants

tion of antibiotic-resistant bacteria. More and more, these bacteria are causing human illnesses that physicians are finding difficult and even impossible to treat. The practice is adding to the general worldwide crisis of drug-resistant disease.

Every year, Americans suffer 1076 million illnesses, over 300,000 hospitalizations, and over 5,000 deaths from something they ate. That something was probably of animal origin. The government's strategy for controlling dangerous bacteria is to inspect meat during processing-something it isn't doing well nowadays (see #24). Except in rare instances. neither the USDA nor the FDA has any regulatory powers on farms where pathogens originate. With the exception of E. coli O157:H7, dangerous bacteria are legally considered "inherent" to raw meat. It's up to consumers to neutralize pathogens with cooking. Two of the legal ones-campylobacter and salmonellaaccount for 80 percent of illnesses and 75 percent of deaths from meat and poultry. One hamburger can contain the meat of 100 different cows from four different countries. One infected animal can contaminate 16 tons of beef.

11 Heart disease does not have to be a death sentence or mean a life of cholesterol-lowering drugs and bypass surgery. By prescribing a vegetarian diet, regular exercise, and spiritual nourishment for his heart patients, Dean Ornish, M.D., proved that the progression of this number-one killer can be halted and even reversed (see #85). 1 2 Jim Mason and Peter Singer

12 Jim Mason and Peter Singer Factories, "Instead of hired hands, the factory farmer employs pumps, fans, switches, slatted or wire floors, and automatic feeding and watering hardware." As with any other capital-intensive system, managers will be concerned with the "cost of input and volume of output....The difference is that in animal factories the product is a living creature."

13 Eating a plant-based diet in an active way, with complex carbohydrates, phytochemicals, antioxidants, vitamins, minerals, and fiber, then by default: The more plant foods you eat, the less room you have

for the animal foods that clog arteries with cholesterol, strain kidneys with excess protein, and burden the heart with saturated fat. The American Dietetic Association acknowledges a correlation between

a vegetarian diet and reduced risk of coronary-artery disease, hypertension, diabetes, obesity, and certain types of cancer.

14 Meat packing is the most dangerous occupation in the nation. Workers may be crushed by animals falling off the line. Poultry workers typically make a single movement up to 20,140 times a day and suffer repetitive-stress disorders at 16 times the national average. Turnover at plants can be as high as 100 percent per year.

 $15^{\text{With so many fish species}}$ on the brink of extinction (see #4), governments continually try to regulate fishing gear, catch size, and catch season. But the regulations almost never work. Policing is expensive. Illegal fishing around the world is estimated to be between 25 and 50 percent of the reported catch. And this does not include catches from ships that avoid interdiction from patrol boats by registering with "flag-ofconvenience" countries-states that have not signed on to international fishing treaties that regulate environmental and labor conventions. These boats, which bring in a full quarter of the world's fish, are often owned by phantom companies in the U.S., Europe, or Japan. This legal "pirating" of the seas doubled during the 1990s.

16 Factory hens today are forced to live in "battery" cages stacked in rows, four high, by the thousands. Each is confined to about 48 to 86 square inches of space. (This page is 81 square inches.) After months of confinement, necks are covered with blis-

ters, wings bare, combs bloody, feet torn. Manure fumes and rotting carcasses force poultry workers to wear gas masks. When the hens become what the industry matter-offactly calls *spent*, producers truck the

mutilated birds—often long distances—to slaughter, or gas them, or grind them up while still alive, to be used as feed for the next flock.

7Campylobacter, which most **L** *I* commonly infects chicken, is the leading bacterial cause of foodborne illness in the U.S. Infections give victims cramps, bloody diarrhea, and fever, and lead to death for up to 800 people in the U.S. each year. A Minnesota Department of Health study tested a hundred chicken products from processing plants in five states in 1999 and found an 88 percent contamination rate. Of these, 20 percent were resistant to quinolones, a family of powerful antibiotics. Scientists blame the resistance on the mid-1990s FDA approval of two of these drugs for therapeutic use on commercial chickens (see #9).

18 An English study that compared the diets of 6,115 vegetarians and 5,015 meat eaters for 12 years found that the meatless diet yielded a 40 percent lower risk of cancer and a 20 percent lower risk of dying from any cause. According to William Castelli, M.D., director of the famed Framingham Heart Study, vegetarians outlive meat eaters by 3 to 6 years.

Animal Welfare Act: Carte blanche for cruelty

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 $19^{\rm Half}$ of every butchered cow and a third of every butchered pig becomes either by-product material or waste. In addition, 920 million animals die on U.S. factory farms before reaching slaughter. What's an industry to do with all this death and gore? Call the renderer straightaway! Recycling, they call it. Lips are exported to Mexico for taco filling; horns are made into gelatin; other parts are fashioned into everything from drugs to aphrodisiacs and cosmetics. The rest is minced, pulverized, and boiled down for more products. Much is dried to a powder to be mixed into animal feed. There are some regulations: Since 1997, feeding ruminant-based slaughterhouse by-product to cattle is illegal (see #63). In 2001, however, the FDA found hundreds of animal feed producers in violation.

20Essentially, if a farming practice is established as "acpractice is established as "accepted," "common," "customary," or "normal," no matter how cruel, anticruelty statutes do not apply. Such a legal environment serves to grant meat producers carte blanche for the development of still other cruel practices and technologies. In general, the animal cruelty laws that do exist are rarely enforced. Fines for violations are negligibly small, and prosecutors may have to demonstrate that a defendant was in a particular mental state when a cruel act was committed. Basically, the meat industry enjoys a privilege unique in the world of law: Instead of society judging which of its actions should be legal or illegal, it makes this determination itself. Is there any wonder that precious little economic loss comes for the benefit of farm animals?

21 Our modern dairy cow lives with an unnaturally swelled and sensitive udder, is likely never to be allowed out of her stall, is milked up to three times a day, and is kept pregnant nearly all of her abbreviated life. Her young are usually taken from her almost immediately after birth. A cow living in today's modern milk factory is, as John Robbins puts it in his book *Diet for a New America*, "bred, fed, medicated, inseminated, and manipulated to a single purpose—maximum milk production at minimum cost."

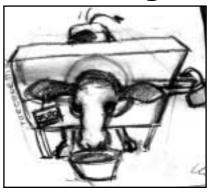
22Waste from livestock in the U.S. amounts to 130 times that produced by people (see #2). Every time it rains, excess phosphorous and nitrogen from the urine and feces seep into our waterways, causing algal blooms, or red tides. Another result of agricultural runoff has been the proliferation of dinoflagellates, named for their characteristic dual flagella, the appendages they use to propel themselves. In 1991, Pfiesteria piscicida was discovered to be a particularly nasty variety, with the ability to ambush its prey by stunning it with a disorienting toxin before sucking its skin off. This nearly indestructible onecelled creature, or "cell from hell," as it soon became known, killed a billion fish during just one flare-up off North Carolina during the early 1990s. People who come in contact with the tiny predator often experience memory loss as well as grotesque sores on their skins. In 1982 there were 22 known species of harmful dinoflagellates. In 1997 there were over 60.

23Castration makes bulls much easier to handle. It makes their meat more marketable also. There are three castration methods, two of which shut off the blood supply so that the testicles either are reabsorbed into the animal's body or simply fall away after a couple of weeks. In a third method, the scrotum is cut so that the testicles can be pulled out. Anesthesia is rarely given before any of these procedures, and sometimes operations are botched. One livestock expert advises would-be emasculators, "Sloppy castration means lower profits."

Pop. 6 Billion: Meat eating, not the way to go

24By concealing a camera on his body, an employee of a Rapid City, South Dakota, slaughterhouse was able to obtain a videotape for CBS-TV's "48 Hours." The tape showed how a plant with over 300 employees that processes an average of 50 cows per hour with only four USDA inspectors "keeps the line moving." It showed workers taking dangerous shortcuts in cleaning up fluid that had broken out of an abscess from a piece of chuck beef-a severe violation of USDA rules, which require an extended clean-up procedure. A USDA veterinarian commented, "I can say from my experience of nine years and in talking to other food inspectors around the country, this probably goes on on a daily basis." **9 L** In 2000, the USDA came out 20 with its official dietary guidelines, as it does every five years, and as always it told people to eat less meat. Of course it didn't use those words; when it did, in 1979, the meat industry sounded such a hue and cry that the U.S. agency quickly retreated. Reduce "saturated fat and cholesterol" it says now, something that means almost nothing to most people.

26^A commercial egg-laying hen is kept crammed with four to eight other birds for life inside a small wire cage. The birds remain perpetually tortured and frustrated as their eggs fall through the wire mesh to roll out of reach but not out of sight. Egg laying is such a personal matter that a hen seeks privacy when performing the function. 27 The senseless waste of the world's growing meat-centered diet is illustrated by a hypothetical statement put forth by the Population Reference Bureau: "If everyone adopted a vegetarian diet and no food were wasted, current [food] production would theoretically feed 10 billion people, more than the projected population for the year 2050."



28In 1997 a bird virus jumped in history. By early 1998, the avian influenza strain H5N1 had killed six people as well as entire flocks of chickens in Hong Kong. Fearing that the strain might be signaling the beginning of a pandemic of human influenza (see #35), authorities slaughtered and buried 1.3 million poultry-market chickens in the city over a chaotic three-day period.

29 As gigantic hog-confinement operations dot the nation more and more, issues of odor impose themselves on entire communities. Fumes carry 150 volatile compounds that can become airborne on dust particles. "In the summer, when they start pumping effluent, it wakes you up. You are gagging," vented one neighbor of a hog factory in a March 1998 New York Times article.

30A male calf born to a dairy cow—what does a farmer do with this by-product of the milk industry? If he is not immediately slaughtered or factory-raised, he is made into fancy veal. To this end, he is locked up in a stall and chained by his neck to prevent him from turning around for his entire life. He is fed a special diet without iron or roughage. He is injected with antibiotics and hormones to keep him alive and to make him grow. He is kept in darkness except for feeding time. The result? A nearly full-grown animal with flesh as ten-

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der and milky-white as a newborn's. The beauty of the system, from the standpoint of the veal industry, is that meat from today's "crate veal" still fetches the premium price it always did when such flesh came only from a baby calf. But now each animal yields much more meat.

 31° On October 12, 1999, the population of the world hit 6 billion, at least in theory. This number is expected to reach 10 billion by 2050. The Green Revolution, which fueled much of the recent growth, appears to have come to an end. Indeed, grain production worldwide has been declining since 1983, and biotech is not likely to reverse the downturn. Today, 70 percent of grain in the U.S. and 40 percent of grain worldwide lavishly goes to feed livestock. And just when the world seems to think it needs more land to cultivate grain to feed to animals so more people can eat them, per-capita world cropland has declined by 20 percent in the 1990s alone. The World Health Organization says 1.2 billion people in the world don't get enough to eat. Increasing meat production is definitely not the answer. **Q9**Polychlorinated biphenyls $\mathbf{J}\mathbf{\lambda}$ (PCBs) are highly toxic chemicals, once used widely in a number of industrial applications. Though they are now banned in the U.S. and other Western countries, their residues have become part of the food chain, lodged in the fat of fish, beef, pork, milk, and other dairy products. Various studies have linked prenatal exposure to PCBs-even tiny amounts-to impaired intellectual development in children. Women who plan to become pregnant are advised to avoid foods containing them, because the chemicals can accumulate in their bodies for years.

33Some farmers feed their it's not illegal, and yes, animals will grow by eating it. According to the FDA, the practice is safe if, during

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composting, the feces are allowed to reach high enough temperatures to destroy harmful bacteria. The problem is, farmers rarely take all the necessary steps in the composting process.

34The late parent advisor Dr. Benjamin Spock maintained that cows' milk "causes internal blood loss, allergies, and indigestion and contributes to some cases of childhood diabetes." In the last edition of his famous baby book he recommended that children after the age of 2 essentially adhere to a vegan diet. But he also believed that dairy milk was not good for infants. According to renowned nutrition researcher T. Colin Campbell, "Cows' milk protein may be the single most significant chemical carcinogen to which humans are exposed."

25 Because of animal agricul-**JJ** ture, the world sees a global pandemic of influenza three or four times per century. Ducks are often the original incubators for a new subtype. In turn, pigs are periodically able to act as hosts for both the avian viruses and human ones. Within the pigs' lungs, the transspecies viruses swap genetic material, creating a new strain that may be passed back to humans. Historically, the most fertile place for this to happen has been south China, where billions of pigs, domesticated ducks, and people all live in close proximity to one another.

36Beef cattle are best suited to moist climates, like those of Europe, where they evolved. But in the U.S., many are concentrated in the West on the driest land. Native grasses long ago were overrun by heartier foreign varieties brought here on bovine hooves. Grazing usually takes place along fragile riparian zones—the strips of land along rivers and streams where wild species of plants and animals concentrate and regenerate. These delicate ecosystems,

which serve as natural purifiers of the water, are summarily trampled flat by cows and contaminated by manure.

37 Adult-onset diabetes is irrefutably linked to fat in the diet. Researchers have found that when diabetics adhere to a low-fat, high-fiber, complex-carbohydrate (vegetarian) diet they are often able to reduce or even eliminate their medication. Tragically, as people around the world increasingly adopt meat-based diets, incidences of this disease—which leads to aggressive atherosclerosis, gangrene, blindness, and kidney failure—rise dramatically.

QQAfter years of selective **JO**breeding and with the help of modern milking practices, a cow today is robbed of many times the milk her calf would take. The strain on her body is equivalent to what a human would experience jogging six hours per day. On the farm of yesteryear, "Bessie" might have lived 20 years. Today, once her milk-producing abilities diminish, after about four years, she is slaughtered and ground to hamburger. In February 1994, the Monsanto company inflicted yet another horror on our friend: a genetically engineered bovine hormone that boosts milk production by as much as 40 percent. And this is an industry that receives government price supports because it perpetually produces gluts.

30U.S. subsidies to ranchers on public lands cost American taxpayers about \$500 million annually. To eliminate livestock predators—real or anticipated—one program uses steel-jaw leghold traps, firearms, cyanide, and poison gas to exterminate thousands of black bears, mountain lions, bobcats, foxes, and coyotes every year.

 $40^{\text{Though osteoporosis is a dis$ ease of calcium deficiency, itis not one of low calcium intake.The main cause for the bone disorder is too much protein in the

Coral Reefs: Obscene plunder for live-fish trade

diet. Excesses can leach calcium from the bones. The typical meateating American is eating about five times as much protein as needed.

1 Technology can save your 41 Technology un de life after a heart attack (see #11), but ultimately you'll have to live with the consequences. In the case of congestive heart failure-a \$19-billion-per-year industry that involves 550,000 afflicted people every year-your heart is so damaged that it is unable to circulate blood to the rest of your body adequately. Often your only hope is to get a transplant, but you'll have to wait in line for that.

 $42^{\mathrm{An}\ \mathrm{egg}\ \mathrm{farmer},\ \mathrm{when}\ \mathrm{faced}}$ a flock of spent hens, knows he can induce them to resume egg production via a forced molt-accomplished with starvation and water deprivation for periods of up to two weeks. No U.S. law prevents the regimen, and in fact most hens are molted at least once in their lives. So cruel is the practice that even McDonald's couldn't stomach it. In August 2000 the burger giant announced that it would not purchase eggs from suppliers that employ the procedure. The dictate was the first from any major U.S. food company to reflect concern over the treatment of chickens.

QAccording to the Occupa-43tional Safety and Health Administration, poultry processors have the worst record for not allowing their employees to use the toilet when needed on the job. In March 1998, the agency announced that the abuses were so bad that it would have to implement explicit directives to protect workers.

44 In any factory-farm opera-tion, a percentage of the animals are sick or crippled. The industry calls them "downers." Federal law does not protect them in any way. Downers are dealt with conveniently. Veterinary care is not wasted on them. If unable to walk, a downer is often dragged by chain

or pushed by a tractor or forklift to slaughter. Such animals may be left to starve or freeze to death. The downer phenomenon would be drastically reduced if stockyards refused to receive and process them. 45^{When researchers at Cornell} University took on the task of developing menus for long-term space travel, prolonged and sustainable life support was their mission. Astronauts not only would have to prepare their own food; they would have to grow it first. In such lifeboat conditions, meat and dairy would have to be off the menu. Too bad not enough people see planet Earth in a similar way! (See #101.) 46^{Cattle thrive best on grass} and hay. But to give beef its signature fatty marbling and to speed growth, ranchers fatten cattle with a high-grain diet. Without the use of antibiotics, the rich feed would cause abscesses to form on the livers of 75 percent of the animals. Unfortunately, such routine drug use raises the risk for the development of antibiotic-resistant bacteria (see #9).

 $47^{\rm If \, you \, like \, the \, idea \, of}_{\rm being \, welcome \, at}$ the places where your food is produced, don't count on your local poultry grower allowing you to see his birds anytime soon. Just barely holding onto life in their drugged-up, overbred, and chronically immunodeficient state, chickens and turkeys in today's factory systems must be carefully segregated from the possibility of infection being brought in from the outside. If even slightly lax in applying rigorous measures Foale

Linda

Marie

of "biosecurity," farmers over wide geographic regions can be forced by a mass outbreak to destroy millions of birds at a time.

4R^{Animal} feces and urine, in **tO**today's quantities, need to be categorized as hazardous industrial waste because of the bacteria, wormy parasites, and viruses they carry. Fumes can be so potent and even explosive that a plume can kill a man on the spot. Still, the most common method of storage for animal waste is an open-air cesspool (see #69).

49Eating fish from coral reefs is like burning the Mona Lisa for kindling. Reefs are the home to 25 percent of all known marine fish species. Yet a burgeoning demand from restaurants for live coral-reef fish has created huge incentives for divers to capture the fish with cyanide. First they dissolve concentrated tablets of the poison into plastic squirt bottles. Once the prey is stunned, full immobilization tends not to take place until after the fish have had a chance to burrow back into the reef. Divers extract their catch with destructive tools. Some reefs are over a million years old. Yet 20 percent have been destroyed in just the

past two decades.

50 One of the most important things you can eat isn't even a nutrient; it's fiber. Plant foods, and grains in particular, are replete with it. Animal muscle has next to none, which is why societies with meat-based diets have such high incidences of colon cancer. Early fiber re-

searcher Denis Burkitt, M.D., observed: "The only reason you have a laxative industry is because you've taken fiber out of your diet."

51 In 1991 the Physicians Committee for Responsible Medicine came out with the New Four Food Groups: fruits, vegetables, whole grains, and legumes

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Scentcerely Yours aromatherapy • organic herbs 773-734-2946 (beans and peas). Meat and dairy are termed "optional," not considered necessary for good health.

52Animal agriculture routinely own convenience. Animals for its own convenience. Animals are branded or ear-notched for identification. They are debeaked or taildocked to minimize the destructive effects of their naturally violent responses to intense confinement. Calves and piglets are castrated for other economic reasons (see #23). And perhaps the most abhorrent: Boar bashing is also common. Justification? Boars with broken noses are less likely to fight.

53 A male chick born with the genes of an egg-laying hen is an annoying by-product to the industry. Not biologically worthy of becoming a broiler, and with no law to protect him, he is disposed of in the least expensive way that hatching operations can devise. Most commonly, he is thrown into a bag with a thousand other male chicks to suffocate.

 54^{Though} sometimes consid-ered a panacea for our time, fish farming, or aquaculture, is even more disruptive to the environment than fishing the seas. • The construction of pens along shorelines is a major reason for the decimation of mangrove forests, where fish reproduce.
Some fish will not breed in captivity, so fish farmers must acquire stock from the wild. These species will have less chance to replenish their numbers in nature.
Farmed fish often escape into the wild, corrupting the genetic purity of wild species and spreading disease at the same time.
Shrimp are fed on a mashed-up aquatic protein mix. So-called biomass fishing, used to derive the feed, is done with fine nets. (Normally, nets are wrought loosely to allow juvenile fish to escape and reproduce-thus assuring future stocks.) Biomass fishing extracts fish indiscriminately. The fish that are caught may be endangered or may be the food on which endangered fish live. • Huge amounts of nitrogenous waste emanate from fish farms, just as with all intensive animal agriculture.

55 The continued adoption of high-fat diets in newly affluent nations around the globe threatens to wreak financial disaster on fragile developing economies. Without treatment infrastructures in place, the inevitable need for high-tech therapies puts a strain on national coffers.

56^A report issued by the Na-tional Academy of Sciences in the summer of 2000 said that 60,000 children are born in the U.S. each year with neurological problems caused by mercury exposure. Environmental groups later concluded that the toxic threat of mercury in seafood was greater than previously thought, especially for children and pregnant women. Their warning advised that certain ocean fish, not just species of freshwater fish, should be avoided. **T**Hoof-and-mouth disease is **J** / rarely fatal, but for its victims it's still a death sentence. When blisters form on hooves and lips and when growth slows because of fever and loss of appetite, it's off to the abattoir. At press time, over 2 million animals in Great Britain had been slaughtered and burned. Only about 1,400 were actually sick; the rest were destroyed to halt the contagion. The pyres of burning carcasses were found to emit huge amounts of dioxin into the air. The ultimate disaster, however, could be if wildlife becomes infected. Wild animals can become long-term or even permanent reservoirs for the disease.

58 If you want to find a lawless industry, you don't have to look farther than the people who produce animals foods: Labor, environmental, and health violations—often of the most unimaginable varieties—are a regular feature in the trade journals if not the

nvCJD: The brain-eating disease of beef eaters

general press. Occasionally, even a "humane handling" violation comes before public scrutiny. In February 2000, USA Today broke a particularly shocking story about two IBP slaughterhouses in Nebraska. The Justice Department was alleging that IBP emitted up to 1,800 pounds of hydrogen sulfide a day from one of its plants. Some of the town's people walked around with tanks of oxygen, but most were just gagging. "It's this progressive loss of brain," explained one expert. Hydrogen sulfide also corrodes the lungs and destroys a person's ability to breathe. We learned that IBP had a 20-year history of environmental misconduct. $59^{\text{The efficient mass produc-}}$ gustatory purposes is keeping researchers in genetic engineering and cloning busy. These virtually unpoliceable technologies are threatening to usher in a brave new feedlot of animal mono-

new feedlot of animal monoculture and cruelty. The future will bring us perfect-fat-tolean-ratio designer pigs, genetically engineered fastgrowing fish, prevaccinated chickens, and more super-milkproducing cows. Josef Mengele would be impressed.

60In 1982 hamburger sickness—or *E. coli* O157:H7 poisoning—was rare. In 1999, the USDA revealed that the deadly strain may infect half of the cattle that are processed into ground beef. Every year, as many as 73,500 Americans get sick from *E. coli* contam-

ination, and 600 die from it. Milder symptoms may range from diarrhea and abdominal cramps to red-blood-cell destruction. More serious bouts may cause blindness, seizures, kidney failure, or paralysis, or they may require partial bowel removal. 61 From the animal-feed breadbasket of the nation's Midwest, massive amounts of fertilizer, pesticides, and manure runoff travel down the Mississippi River till they end up in the Gulf of Mexico. This high-nutrient mix causes an eco-chain reaction that ultimately ends with microscopic organisms robbing the bottom of the ocean of oxygen. Animals there need to relocate to more oxygen-rich waters. Slow and nonmobile species suffocate. The phenomenon is known as hypoxia. Scientists have dubbed affected areas "dead zones." Once a year the Gulf's dead zone grows to about the size of New Jersey.

62 In what is still the most comprehensive study of diet and lifestyle ever made, the China Project found that animal protein is linked to chronic disease. The findings from this grand epidemiological study are especially compelling because the data collected allows meaningful comparisons between popula-

> tions with similar genetic backgrounds yet with nonhomogeneous diets and lifestyles.

63 One by one we're downed by the very mysterious *new-variant Creutzfeldt-Jakob disease*, a brain-eating affliction that experts say is a human version of *bovine spongiform encephalopathy* (BSE), or mad cow disease. The 100 or more victims of the brain-wasting disease since 1986 probably became infected after eating

beef from cows who had been fed brain and nerve tissue of scrapieinfected sheep. Death from the dis-

Rochelle

Goldman

The top two illustrations on the front cover and those near reasons #16 and #28 are by New York City artist Juan Torcoletti (212-219-8796). ease is inevitable, often prolonged, and thoroughly hideous. Recent evidence confirming the transspecies link gives credence to the notion that the disease, which has a 15- to 20-year incubation period, may someday become much more widespread. Though feeding ruminant remains back to ruminants was made illegal in the U.S. in 1997, the imprudent practice of recycling animal parts back to livestock has been going on for decades. It could be only a matter of time before America suffers its own version of the English saga, which saw over 200,000 cattle infected with mad cow disease. That will be something to worry about if it comes. Until then, it may be a good idea to remember that about 2,600 Americans die from cardiovascular disease every day. Beef eating has plenty to do with it, too; there's no mystery about that.

64 Though considered more healthful than beef, fish is still a high-fat, high-calorie, fiberless food imbued with artery-clogging cholesterol. It is concentrated with protein (see #62), so it raises the risk of osteoporosis and kidney problems, and it often is laden with dangerous toxins absorbed from polluted environments (see #32 and #56).

65 When researchers installed videocameras in the kitchens of 100 homes to watch meals being prepared by unsuspecting study participants, it was found that up to 42 percent of the pathogen-prone meat dishes were undercooked. The meat industry claims that it doesn't have to provide pathogen-free products, because bacteria are killed by cooking. Perhaps this policy needs to be reconsidered—or people need to go vegetarian.

66 From farm to table, animal foods are a filthy business. Antidotes to the many pathogens they harbor is an ever-burgeoning industry. • On the farm, there are

Pathogen Parade: Ingenious antidotes to filth

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THANK-YOUS

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In the slaughterhouse, there are steam, saline and acidic solutions, irradiation, ultrahigh pressure, competitive exclusion (which adds benign bacteria to crowd out the lethal kinds), electrolyzed water, liquid nitrogen, and ozone gas. In the supermarket, detection tabs monitor food temperature. Other detection devices include scat scanners and fiber-optic pathogen sensors that use vibrating quartz crystals. • In the kitchen, a silver-coated cutting board kills food bacteria.
Then, if you still get sick, you can take a drug to absorb the toxicity. What'll they think up next!

67In 1995, a USDA study found that "greater than 99 percent of broiler carcasses had detectable *E. coli*." Though in most cases the *E. coli* strain was not the deadly one (O157:H7), the finding points to the unsavory fact that nearly all chicken comes in contact with fecal matter at least some time during processing.

68Today the poultry industry is a vertically integrated oligopoly, meaning that a few giant chicken companies control production, from chick hatching to grocery-store delivery. Squeezed into the arrangement is the contract grower. The big company owns the birds; the grower supplies the labor and the factory confinement hardware. The situation often appears good to the grower when she signs her first contract and goes into debt by several hundred thousand dollars. It's not long before she finds that the multibillion-dollar corporation she has contracted with is now calling all the shots, and that the debt she's incurred has reduced her to little better than indentured servitude.

69 The passage of local laws fapork operations in North Carolina recently propelled the state into the number-two spot in national hog production. In terms of sewage, twice the human population of New York City might as well have moved to North Carolina. University studies estimate that half of the 2,500 open hogmanure cesspools (euphemistically termed "lagoons"), now an inevitable part of hog production there, are leaking contaminants such as nitrate into the groundwater. In the summer of 1995, at least five lagoons broke open (see #48), letting loose tens of millions of gallons of hog urine and feces into rivers and onto neighboring farmland. No mechanical method of retrieval exists to clean contaminants from groundwater; only nature is able to purify things again. And that can take generations.

OBetween 1984 and 1994 a third of U.S. packinghouses went out of business thanks to lax enforcement of the antitrust laws. Consequently, a more powerful industry was able to get faster kill speeds approved even while the number of line employees was being reduced. Meat and poultry safety has been suffering ever since. In 1996 alone, USDA regulators made 138,593 "critical" citations against the country's 6,400 processing plants. Each infraction had the potential to sicken consumers if the food had been distributed. Thanks to loopholes in the law, plants were almost always allowed to continue operating.

71 Turkeys today have been selectively bred to such an extent that their huge breasts make it impossible for them to accomplish the sex act on their own. The industry must artificially inseminate them. The job is nearly as dehumanizing for the workers—who must work rapidly for long hours and low wages—as it is deplorable for the tortured breeder birds, who are essentially raped once or twice a week for 12 to 16 months until slaughter.

Free-Range: A deceptive marketing gimmick

72 In most large commercial | pared the diets of two segments of | world's rangelands have been dam-its population. One segment sub- | aged by overgrazing, the most perheads of doomed birds are first plunged into an electrified brine-water bath. The electric current is set at a voltage 🦨 just high enough to immobi-

lize the birds and to promote bleedout without hemorrhage. The birds not only are sentient during slaughter, but must suffer the excruciating shock. The current serves to minimize any inconvenient flailing that might interfere with the slaughter process.

73Legally, the term *free-range* is virtually meaningless. The federal government has only the vague requirement that the animals from which such meat is derived have access to the outdoors. This could mean one small opening for thousands of birds. There is nothing in the law to prevent these "free-range" animals from the same kind of cruel treatment imposed on any other factoryfarmed animals. In March 1998, Consumer Reports found free-range poultry actually more contaminated with salmonella and campylobacter than other poultry.

74 New York State's Depart-ment of Environmental Conservation and its Department of Health put out a flyer called "Eating Sport Fish." The advice speaks for itself: No one should eat more than one meal of fish per week from any of the state's fresh waters; chemical contaminants may be a problem; trim all fat; don't consume cooking liquids. On the other hand, if you still want to enjoy the "fun" of sport fishing but don't want to contaminate yourself, the flyer suggests "catch and release." But don't tear out the hook, "cut its leader." Also avoid playing fish to exhaustion, the flyer advises.

75The tiny, mostly impover-ished nation of Albania recently became the setting for an epidemiological study that com-



sists on foods that are mostly of animal origin; the other enjoys what is today termed the Mediterranean diet, which consists mainly of fresh fruits and vegetables, cereals, and olive oil. Death rates were notably higher in the segment that primarily consumes animal foods. The researchers announced that the study could well serve as a model for health-policy planners everywhere. 76^{As} the trade in meat be-comes more global, "carnivore" conflicts inevitably come to the fore. A recent glaring example was the 2001 hoof-and-mouth disease disaster (see #57), when countries quickly severed trade with the entire European Union, though the disease was mostly confined to England. Meanwhile, the hormone-in-beef dispute between the U.S. and the EU remains a sticking point, and meat safety standards from nation to nation also continually need to be hashed out. Furthermore, disagreements over fishing rights regularly bring nations to the verge of armed conflict: In 1997 the United Nations reported that over 100 countries were involved in fishing disputes.

77 The population explosion should not be thought of exclusively in terms of people-not when the combined weight of the world's 1.3 billion domesticated cattle exceeds that of the entire human population. Cattle disrupt ecosystems over half the world's land mass. In the past half century alone, more than 60 percent of the

vasive cause of desertifica-

tion. **O**verwhelming evi-**/O**dence has indicted red meat because of its fat content. Now, this all-American

disaster food just got more toxic, thanks to numerous studies that link its high iron content to heart disease and atherosclerosis. Iron, it is believed, generates free radicals-unstable particles that damage cells. It may also interfere with nitric oxide in the body, a chemical that allows blood to flow through the blood vessels more freely. New research is also poking holes in the belief in the heart-protective effects of estrogen in premenopausal women. That protection may be because of the monthly loss of iron through menstruation.

7()Animal foods are high in **J** sodium, which causes the blood to retain water. They also cause plaque to build up in the arteries, narrowing the flow area for blood. Combine these phenomena and you have a recipe for a disease that afflicts about 50 million Americans: high blood pressure. You can take calcium channel blockers and diuretics to control it, but studies warn that you risk losing intellectual function if you do.

80 In the early twentieth cen-tury man learned to extract nitrogen from the air, cheaply and in large quantities. The discovery has allowed 2 billion more people to inhabit the Earth and given farmers the luxury of feeding cropland to livestock. Yet what gives the world abundance has poisoned waterways from the China countryside to the Ohio Valley. Billions of animals recycle excess nitrogen into the environment with their manure. Even human sewage has become more nitrogen-rich, especially with the many more meat eaters that the world can now support. Waterways in North America

Protein Dilemma: Don't worry; go vegetarian

and Europe have 20 times the nitrogen they did before the Industrial Revolution. To produce a gram of meat you need over 15 grams of nitrogen; to produce a gram of wheat flour, only 3 grams. 81 Food animals are transported in all weather. When it is brutally cold, animals may freeze right to the sides of trucks or become frozen in the urine and feces that build up on truck floors. In hot weather, heat stress will kill many. Losses, however, are figured into the cost of doing business. According to swine specialist Kenneth B. Kephart, "Even with a zero death rate that might be associated with providing more space on a truck, the hogs that we save would not be enough to pay for the increased transportation costs of hauling fewer hogs on a load."

82^{Wh e n} Eat Your or poultry is barbecued, dripped fat over the open flame sends up plumes of smoke that coat the food with carcinogens. Other unhealthful chemicals are created just by ex-

tended cooking times. Chemists are telling meat

eaters today to keep those grill times down. Even environmentalists are saying that restaurant grilling is a major source of soot and smog. But you still need to cook your meat thoroughly: How else are you going to kill all of the deadly bacteria?

et in

83As a result of the introducsphere, major forest fires in the American West occur today at the rate of one every three years, where earlier they may have occurred only once in a century. Historically, ranchers suppressed "cool" grass fires on the bovines' behalf, allowing tinderboxes of dense foliage to build up below taller trees. Factor in cheatgrass, a nonnative plant that would not have had the opportunity to take root in America without the overgrazing of cattle. This prolific weed provides dry, papery kindling in early summer, perfectly conducive to massive forest fires.

84 Thanks to a growing special-ization in the several stages of cattle production and to producers seeking the best price at every step of the process, your hamburger may have come from a steer who suffered the brutality of transport between Mexico and the U.S. two or three times. The USDA and the financial community hail this back-and-forth animal shuffling as a development that shows how the various "cattle sectors" can "complement" one another through "free trade." It's not likely that the steers who suffer these junkets share the zeal of their analysts.

85^{Clog} up your arbloaded on saturated animal fat year after year and you're putting yourself at risk for the great killers of the Western world: heart attack and stroke. Of course, you can always opt to forestall the inevitable with

repeated angioplasty—a \$16,000 medical procedure done with a balloon-tipped catheter that flattens plaque against artery walls, thus opening up passageways for blood flow. But a vegetarian diet—along with regular exercise—can have the same effect.

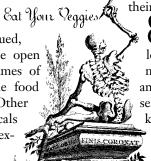
86 More than half of the nation's seafood companies do not follow federal food-safety rules. Regulators from the Food and Drug Administration visit processors only once a year to oversee essentially voluntary company sanitation measures. Inspections often entail nothing more than an overview of paperwork. Moreover, half of all fish consumed in the U.S. are imported.

None but a few of the largest foreign processing plants are ever seen by U.S. inspectors.

Q7Rats grow more slowly on **O** *I* vegetable protein than animal protein. When this fact was discovered 75 years ago, the meat industry seized upon it as proof that people should buy meat products. Subsequent studies, however, have shown that foods that promote rapid growth cause rapid aging and are more likely to facilitate cancer. **QQ**As hog feces and urine col-**OO**lect in giant cesspools around factory farms, the sludge is broken down naturally by bacterial digestion. Hazardous nitrogen is eliminated, but in the process it is converted into ammonia gas. With subsequent rainfalls, the ammonia is returned to the Earth, polluting rivers and streams.

89In central California, 1,600 dairies produce the feces and urine of a city of 21 million people. Not enough surrounding land is available to absorb it all. When the San Francisco Chronicle reported that the surplus cow sludge was polluting local waterways, only one state official was employed to track it all down. Once he located a source, frequently far upstream, he often discovered that a drainage ditch had deliberately been built. Violation notices that he wrote up were often simply ignored. In one case that made it to court, the judge imposed a relatively small fine of \$10,000. The dairy was soon polluting again. The deputy district attorney in the area commented that the case was only the tip of the iceberg.

90 One meal of a burger, fries, and a milk shake, or a large steak and baked potato with sour cream, can put even the healthiest person at risk for a heart attack. The same meal is all the more lethal to a person with clogged arteries, according to a 1996 study at the University of Maryland (see #85). Researchers there measured



Sudden Death: High-fat meals kill on the spot

the arterial response to stress in ten subjects before and after a high-fat meal—one with 50 grams of fat or more. Fat-filled arteries were able to expand (respond) only 50 percent of the normal amount. After a no-fat vegetarian meal, there was no reduction in artery function. A similar study reported in 2001 found that a moderately high-fat meal dramatically reduces elasticity in the arteries, which raises the risk for heart attack.

91 Drains and sewers at slaughterhouses often become backed up with guts and coagulated blood. The pools that develop may come up to workers' ankles. The muck may splash up onto the animals, spreading contamination. Or whole heads of shackled animals may even be dragged through it.

92As fishermen find that their ished by overfishing, they are likely to turn to species lower on the aquatic food chain to fill their nets. Knowingly or otherwise, people today are putting fish that would normally be food for endangered fish on their own dinner plates. If the trend continues, experts predict, marine food webs will collapse in 30 to 40 years (see #4).

93 Hard, cold, strawless floors, filth, and space hardly bigger than her own body—this is the life of a breeding sow on today's factory farm. This highly intelligent creature will repeatedly endure artificial insemination, pregnancy in solitary confinement, and farrowing-stall imprisonment, where her body will be pinned in place to expose her teats to her piglets. Relentless boredom, frustration, and loneliness will drive her insane. When her body's productive capacity wanes, she will be sent to slaughter.

94 At least one in every five be infected with Johne's disease. The infection is increasingly being



SAUSAGE KILLS ME: "Babe" at a pork-eating festival—the annual San Gennaro feast in NYC.

linked to Crohn's disease in people, a condition of chronic diarrhea, which requires victims to have parts of their intestines removed periodically. In May 2001, the National Milk Producers Federation asked the U.S. government for \$1.3 billion to pay for mass herd destruction to eradicate the cow scourge. Where did the group get such a skewed sense of entitlement? Blame Congress: Every other dollar that goes to U.S. farmers comes from taxpayers.

95^{In} order to grow necessarily grains (see #31), farmers worldwide are depleting underground aquifers faster than rainfall can keep up. The great Ogallala Aquifer in the central U.S. is being depleted about 140 percent faster than it is being replenished.

96 A USDA microbiologist declared in a *TIME* magazine story on processed poultry that "the final product is no different than if you stuck it in the toilet and ate it." No wonder: A 1978 USDA rule allows poultry processors to "wash" contaminated birds rather than discard them or cut away affected parts. Wash, as interpreted by the poultry industry, essentially amounts to a communal dunk in what industry insiders refer to as the "fecal soup," virtually ensuring salmonella cross-contamination.

97 To produce foie gras, male ducks are force-fed 6 or 7 pounds of grain three times a day

with an air-driven feeder tube. This torturous process goes on for 28 days until the ducks' livers, from which the pâté is made, bloat to 6 to 12 times their normal size. About 10 percent of the ducks don't make it to slaughter: They die when their stomachs burst.

98 Every year, 24,000 fishermen worldwide die on the job, making fishing the most dangerous occupation in the world, according to the Food

and Agriculture Organization of the U.N. In the U.S., a fisherman is 16 times as likely to die on the job as a policeman or fireman.

99Every day 600 people in the U.S. die so suddenly from cardiac arrest that they don't even make it to the hospital. Of the victims, 90 percent have two or more arteries narrowed by atherosclerosis (hardening of the arteries), a disease inexorably linked to a meat-based diet.

A heat wave in July 1995 **IUU**killed about 4 million chickens east of the Chesapeake Bay on the Delmarva Peninsula in a single weekend. (Unofficial counts were as high as 10 million.) Such catastrophic mortalities are not unusual. But you may not always hear about them; no farmer is compelled to report when they happen, even though the mounds of dead birds can be an environmental hazard. If local soil is sandy, as it is on the Delmarva, burying carcasses (the cheapest, most common solution) will contaminate the groundwater, no matter how carefully it is done.

101 A symposium of scientists predicted in 1995 that energy shortages, exhausted land, scarce water, and a doubling population will impose more of a plantbased diet onto America's dinner tables by 2050. They acknowledged that this diet, born of scarcity, would "actually be a healthier one." Surely the sooner we all learn to enjoy it the better! NOTE: "(www)" indicates a reference found on the World Wide Web and therefore no page reference.

- David Wolfson, Beyond the Law: Agribusiness and the Systemic Abuse of Animals Raised for Food or Food Production, Farm Sanctuary, 1999, pp. 13–16.
- "Animal Waste Pollution in America: An Emerging National Problem," Report Compiled by the Minority Staff of the U.S. Senate Committee on Agriculture, Nutrition and Forestry, Dec. 1997.

Joby Warrick and Todd Shields, "Maryland Counties Awash in Pollution-Causing Nutrients," *The Washington Post*, Oct. 3, 1997, p. A1.

- . David Brown, "Panel: Up to 40% of Cancer Cases Are Preventable," *The Washington Post*, Oct. 1, 1997, p. A12.
- Erica Bulman, "U.N. and Nature Fund Blame Subsidies for Global Fisheries Crisis," Associated Press, June 2, 1997.

Gary Polakovic, "Saving a Place for Marine Life" (www), *Los Angeles Times*, Aug. 27, 1999.

Carl Safina, "The World's Imperiled Fish," *Scientific American*, Nov. 1995, pp. 48–49. Scott Sonner, "Scientists

Concerned About Oceans," Associated Press, Jan. 6, 1998.

 Gail Eisnitz, Slaughterbouse: The Shocking Story of Greed, Neglect, and Inbumane Treatment Inside the U.S. Meat Industry, Prometheus Books, 1997, p. 24.
 Karen Davis, Prisoned

Chickens, Poisoned Eggs: An Inside Look at the Modern Poultry Industry, Book Publishing Company, 1996, p. 139. "Meat Inspectors Say USDA Ignores Humane Slaughter Act," Reuters, June 13, 2001.

- "2001 Heart and Stroke Statistical Update," American Heart Association, p. 31.
 Maggie Fox, "Group Says US Cancer Cases Will Surge in 2001," Reuters, Jan. 4, 2001.
- "He's Smarter Than You Think" (www), *The Electronic Telegraph*, London, England, May 31, 1997.
- Ed Ayres, "Will We Still Eat Meat?" *TIME*, Nov. 8, 1999, pp. 106–07.
 Julie Forster, "Who's Afraid of a Little Mud?" *Business Week*, May 21, 2001, p. 113.

"Technical Services Provides Behind-the-Scenes Support to Producers and Plants" (www), Perdue News (press release).

"Seventy Percent of All Antibiotics Given to Healthy Livestock," Union of Concerned Scientists press release, Jan. 8, 2001.

 Nicols Fox, Spoiled: The Dangerous Truth About a Food Chain Gone Haywire, Basic Books, 1997, pp. 139-40, 274.
 Nicols Fox, "Safe Food? Not Yet," The New York Times, Jan. 30, 1997, Op/Ed page.
 Slaughterbouse (see #5), pp. 158–59.

Amanda Spake, "Outbreak," U.S. News & World Report, Nov. 24, 1997, pp. 70, 72.

- "As Hamburgers Go, So Goes America?" *The Economist*, Aug. 23, 1997, p. 22. 11. Roberto Suro, "Hearts
- and Minds: Bypassing the Bypass; Dr. Dean Ornish Uses Diet, Exercise and Meditation to Unclog Coronary Arteries," *The New York Times Maga*-
- zine, Dec. 29, 1991, p. 18.
 12. Jim Mason and Peter Singer, Animal Factories, Crown Publishers, 1980, p. 18.
- 13. "Position of the American Dietetic Association: Vegetarian Diets," American Dietetic Association,
- Chicago, IL, 1997. 14. *Slaughterhouse* (see #5), pp. 32, 62, 76, 271. Eric Schlosser, *Fast Food*

Nation, Houghton Mifflin Company, 2001, p. 172. "Trouble on the Line," *Consumer Reports*, Mar.

- 1998, p. 16.
 15. Paul Brown, "UN to Crack Down as Pirate Boats Threaten to Drive Fish to Extinction" (www), *The Guardian*, Aug. 15, 2000.
 "The Tragedy of the Oceans," *The Economist*,
- Mar. 19, 1994, p. 21. 16. *Prisoned Chickens* (see #5), pp. 54–55, 64, 76–77, 106–07.
- David Brown, "Drug Resistance in Food Chain," *The Washington Post*, May 20, 1999, p. A2. Marion Burros, "Health
- Concerns Mounting Over Bacteria in Chicken," *The New York Times*, Oct. 19, 1997, p. 1. 18. "Eat Your Vegetables!" *Harvard Health Letter*; Nov.
 - Neal Barnard, M.D., Power of Your Plate, Book Publishing Company, 1995, p. 25.

Feed Makers Violating Mad Cow Rules," Associated Press, Jan. 12, 2001. Sandra Blakeslee, "Fear of Disease Prompts New Look at Rendering," The New York Times, Mar. 11, 1997, p. C1. "Number of Victims Reaches New High,' The FARM Report, newsletter of Farm Animal Reform Movement, Summer/Fall 1997, p. 8. J. Peder Zane, "It Ain't Just for Meat; It's for Lotion," The New York Times, May 5, 1996, p. 5. Michael Satchel and Stephen J. Hedges, "The Next Bad Beef Scandal: Cattle Feed Now Contains Things Like Ma-

- nure and Dead Cats," U.S. News & World Report, Sept. 1, 1997, p. 23.
 20. E-mail correspondence with David Wolfson, author of Beyond the Law (see #1).
 21. John Robbins, Diet for a
- 21. John Robbins, *Diet for a New America*, Stillpoint Publishing, 1987, pp. 110–12.
- Michael Satchel, "The Cell from Hell," U.S. News & World Report, July 28, 1997, pp. 26–28.
 Tony Bartelme, "Scientists Track the 'Phantom'" (www), The Post and Courier, Charleston, SC, Sept. 1, 1996.
 "Animal Waste" (see #2).
- Matt Claeys, "Castration: Not Cutting Will Cut Profits" (www), *Animal Husbandry Newsletter* Jan./Feb. 1996.
 John W. Comerford, "Get the Calves Castrated" (www), *Livestock Notes*, PENpages, Feb./Mar. 1997.
- 24. "Is Your Food Safe?" "48 Hours," CBS-TV, Feb. 9, 1994.
- 25. Marian Burros, "Guidelines Mix Politics and Chicken Skin" (www), *The New York Times*, Jan. 25, 2000.
- 26. Prisoned Chickens (see #5), pp. 54–55.
- 27. "Diverse Diets, With Meat and Milk, Endanger World Food Supply" (www), Hearst News Service, Mar. 8, 1997.

 Rone Tempest, "New, Lethal Flu May Stem from 'Chicken Ebola'" (www), Los Angeles Times, Dec. 14, 1997.
 Kathy Wilhelm, "Hong

Kong Made Mass Slaughter Errors," Associated Press, Jan. 2, 1998.

29. "Options for Managing Odor: A Report From the Swine Odor Task Force" (www), North Carolina General Assembly, North Carolina State University, Mar. 1, 1995. John H. Cushman, Jr., "Pollution by Factory Farms Inspires Industrial Approach to Regulation," *The New York Times*, Mar. 6, 1998, p. A12.

- 30. *Diet for a New America* (see #21), pp. 112–17.
 31. "Will We Still Eat Meat?" (See #8.)
 - David Pimentel, "How Many Americans Can the Earth Support?" (www), EcoFuture, May 18, 2000.

"Population Expected to Hit 6 Billion," Associated Press, Oct. 9, 1999. T.R. Reid, "Feeding the Planet," *National Geo*graphic, Oct. 1998, p. 65.

- 32. Elizabeth Kolbert, "The River," *The New Yorker*, Dec. 4, 2000. Jane E. Brody, "Study Finds Lasting Damage From Prenatal PCB Exposure," *The New York Times*, Sept. 12, 1996, p. A14.
- 33. "The Next Bad Beef Scandal" (see #19), pp. 22–24.
- 34. T. Colin Campbell, Ph.D., "New York Times: Reality Check Needed" (www), Oct. 26, 2000. Joe Crea, "Don't Have a Cow, Man: Making Sense of Warnings About the Hazards of Milk," Good Living, Daily News, New York, Oct. 21, 1992, p. 6.
- 35. Judy Foreman, "Team Hopes to Unearth 1918 Flu Virus," *The Boston Globe*, Nov. 3, 1997, p. C1. David Brown, "Second Person Identified With Flu Previously Found Only in Birds," *The Washington Post*, Dec. 3, 1997, p. A2.
- 36. Jeremy Rifkin, Beyond Beef: The Rise and Fall of the Cattle Culture, Dutton, 1992, pp. 187–88, 205, 211. Todd Oppenheimer, "The Rancher Subsidy,"
- "The Rancher Subsid *The Atlantic Monthly*, Jan. 1996, pp. 26–38.
- 37. Neal D. Barnard, M.D., Food for Life: How the New Four Food Groups Can Save Your Life, Harmony Books, 1993, pp. 123–27. Power of Your Plate

 (see #1⁰), pp. 125–128.
 38. C. David Coats, *Old Mac-Donald's Factory Farm*, Continuum, 1989, pp. 51, 55–56.
 Raymond Hernandez,

"Pataki's Dairy Farm Plan Risks Consumers' Anger," *The New York Times*, Jan. 29, 1998, p. B1.

39. "The Rancher Subsidy' (see #36), p. 38. "Grazing Fact Sheets" (www), Forest Guardians, Santa Fe, NM, 1996. "Hot Issues for the Second Session of the 105th Congress" (fact sheet), Humane Society of the

United States, Jan. 7, 1998. 40. Michael Klaper, M.D., *A Diet for All Reasons* (video), the Institute of Nutrition Education and Research, 1993.

41. "2001 Heart and Stroke Statistical Update" (see #6), p. 19.
Denise Grady, "As Heart Attacks Wane, Heart Failure is On the Rise," *The New York Times*, May 4, 1999, p. F1.

42. Prisoned Chickens (see #5), pp. 74–75. Rod Smith, "McDonald's Guidelines Send Signal Across All Animal-Production Segments" (www), Feedstuffs, Aug. 28, 2000.

 "OSHA To Require Bathroom Access," Associated Press, Mar. 12, 1998.

- 44. "Why Farm Sanctuary Is Driving for Protection of 'Downers'," Farm Sanctuary, www.farm sanctuary.org.
- Reed Karaim, "What Will Future Astronauts Eat?" USA Weekend, Mar. 13–15, 1998, p. 20.

46. "High-Calorie Cattle Feeding Studied" (www), Meat Industry Insights News Service, May 20, 2001.

 Kenton Kreager, et al., "Biosecurity Tips," *California Poultry Letter*, University of California at Davis, Jan. 1997, p. 19. Peter Jackson, "Poultry Epidemic Threatens Inthere is a serviced Davis

dustry," Associated Press, June 23, 1997.
48. Grace Truman, "Manure Pits—A Deadly Risk" (www), PENPages, May 23, 1995.

"Pork Power," "60 Minutes," CBS-TV, Dec. 22, 1996.

- Dirk Bryant, et al., Reefs at Risk, WRI, ICLARM, WCMC, and UNEP, 1998, pp. 5, 7, and 15.
 "Coral Reefs: Magnificent Creations of Nature" (www), The Coral Reef Alliance.
- 50. Power of Your Plate (see #18), pp. 116–120.
- 51. "Eating Well: Rethink Food Groups, Doctors Say," *The New York Times*, April 10, 1991, p. C1.
- 52. "The Cruelties of 'Food Animal' Production," Sanctuary News, Summer 1997, pp. 4–5.
- 53. *Prisoned Chickens* (see #5), p. 122.

REFERENCES

- 54. Kieran Mulvaney, "A Sea of Trouble" (www), E/The Environmental Magazine, Jan./Feb. 1998. "Imperiled Fish"
- (see #4), pp. 49-50. 55. "Cardiovascular Disease Epidemic Threatens Developing Countries, Global Economy' (www), American Heart Association, Feb. 16, 1998.
- 56. Robert Braile, "Warning Sounded on Safety of Seafood," The Boston Globe, Mar. 11, 2001, p. W1.
- 57. Verlyn Klinkenborg, "Pox Pouli" (www), The New York Times, May 6, 2001.

Stephen Pincock, "Britain Investigates Health Risk of Animal Pyres," Reuters Health, Apr. 29, 2001. Joshua Lipsky, "The Birth

of a Crisis: The Foot and Mouth Disease Timeline" (www), The Meating Place, Mar. 1, 2001. 58. Elliot Blair Smith.

- Special Report: Stench Chokes Nebraska Meatpacking Towns," USA Today, p. B1.
- 59. Karl Wolfshohl, "Farm Animals Map the Fu-ture" (www), Progressive Farmer Online, Mar. 1997.
- 60. "Preventing Foodborne Illness: Escherichia coli O157:H7" (www), Centers for Disease Control, Atlanta, GA, Apr. 1, 1993. Gina Kolata, "Detective Work and Science Reveal a New Lethal Bacteria," The New York Times, Jan. 6, 1998, pp. A1, A14. "New E. coli Report Questions Safety of U.S. Beef" (www). Reuters and Associated Press, Nov. 11, 1999, posted to CNN Web site.
- 61. Tim Beardsley, "Death in the Deep: 'Dead Zone' in the Gulf of Mexico Chal-lenges Regulators," Scientific American, Nov. 1997, pp. 17–18.
- 62. Jane E. Brody, "Huge Study of Diet Indicts Fat and Meat," The New York Times, May 8, 1990, p. A1.
- 63. Sandra Blakeslee, "New Evidence Said to Dispel Doubt on Mad Cow Disease" (www), The New York Times, Sept. 30, 1997. Terence Chea, "'Mad Cow' Fears Create a Market," The Washing-ton Post, May 29, 2001, p. E1. "Bungled," The Econo-

mist, Mar. 14, 1998. pp. 21-23. Anita Manning, "Mad

Cow Disease Runs a

Baffling Course" (www), USA Today, Science, Dec. 2, 1997. 2001 Heart and Stroke Statistical Update (see

#6), p. 4. 64. Power of Your Plate (see #18), pp. 22, 194–196.

- "The Big Problem" (www), Rachel's Environment & Health Weekly, #450, July 13, 1995. 65. Lauran Neergaard, "Hy-
- giene Lapses Cited As Cause of Food Poisoning," Associated Press story in The Boston Globe, June 20, 2000, p. A3.
- 66. Contact the VivaVegie Society. References are too numerous to list.
- 67. Spoiled (see #10), pp. 178-79.
- 68. Larry McKnight, "All Farmers Have a Stake in Our Chicken War" (www), National Contract Poultry Growers
- Association, Feb. 1997. 69. Joby Warrick and Pat Stith. "The Power of Pork: New Studies Show Lagoons Are Leaking," The News & Observer; Feb. 19, 1995, pp. 2-3. Ronald Smothers, "A Confrontation Over Hog Growers in North
- Carolina, The New York Times, Mar. 2, 1996, Op/Ed page. 70. "Records Show Meat Plants Operate Despite Violations," Associated Press, Jan. 17, 1998.
- Slaughterhouse (see #5), p. 62. 71. Jim Mason, "Inside a Turkey Breeding Fac
 - tory: Of Rape and Pillage," Farm Sanctuary News, Fall 1997, pp. 5–7.
- 72. Prisoned Chickens (see #5), pp. 115–116. 73. "Home, Home on the...Small Patch of
- Dirt," Consumer Reports, Mar. 1998, pp. 14–15.
- 74. For a copy of the flyer, call 800-458-1158, ext. 27815.
- 75. "Albanian Longevity Linked to Diet," Reuters, Dec. 22, 1997.
- 76. Norman Kempster, "U.S., EU Dig In Heals on Meat Ban, Food Restrictions" (www), Los Angeles Times, Mar. 29, 2001. Jonathan Friedland, "Eco-Threats: Redefining National Security," Dow Jones
- News, Nov. 25, 1997. 77. Beyond Beef (see #36), p. 1. "Be an Environmentalist," EarthSave, newsletter of the EarthSave Foundation,
- Mar. 1995, p. 6. 78. "Japanese Heart-Disease Study Focuses on Role of Iron," Reuters, Oct. 26, 2000.

REFERENCES

- 79. Diet for All Reasons (see #40). Theresa Tamkins. "Blood Pressure Drugs Affect Intellect," Reuters, Dec. 3, 1997.
- 80. Tom Horton and Heather Dewar, "Feeding the World, Poisoning the Planet" (www). Baltimore Sun, Sept. 24, 2000. Heather Dewar and Tom Horton, "Seeds of Solution to Nitrogen Glut" (www), Baltimore Sun,
- Sept. 28, 2000. 81. *Slaughterhouse* (see #5), pp. 100–01, 211. Kenneth B. Kephart, "Handling Hogs" (www), PENPages, Oct. 15, 1997.
- 82. "Smogburgers Would Be Out Under Air-Quality Plan," San Jose *Mercury News*, Sept. 6, 1994, p. 3B. "These Few Tips Make Food Cooked On the Grill Healthier," The Wall Street Journal, June 2, 1997, p. B1.
- 83. Mark Robichaux, "Scientists Fight Fires By Trying to Outwit A Very Persistent Weed," The Wall Street Journal, Sept. 1, 2000, p. 1.
- "U.S., Mexican Cattle Sec-84 tors Complement Each Other," Financial News Network, June 22, 1995. 85. Diet for All Reasons (see #40).

"An Abandoned Drug Offers Hope for Heart Patients, Study Finds,

- *The New York Times*, Aug. 7, 1997, p. A19. 86. Melinda Fulmer, "Study: System for Seafood Safety Inspections Flawed" (www), Los Angeles Times, Feb. 14, 2001.
- 87. Joel Fuhrman, M.D., Fasting and Eating for Health, St. Martin's Griffin, 1995, pp. 95-96.
- 88. "The Power of Pork" (see #69), pp. 2-3 89. Elliot Diringer, "In Cen-
- tral Valley, Defiant Dairies Foul the Water," San Francisco Chronicle. July 7, 1997, p. A1. 90. "The ABC evening news
- with Peter Jennings," WABC, May 9, 1996. Keith Mulvihill, "High-Fat Meals Hamper Artery Function, Reuters, June 1, 2001.
- 91. Slaughterhouse (see #5), pp. 30, 83-84. 92. William K. Stevens,
- "Man Moves Down the Marine Food Chain, Creating Havoc," The New York Times, Feb. 10, 1998, p. F3.
- 93. Gene Bauston, Battered Birds, Crated Herds: How We Treat the Animals We Eat, Farm Sanctuary. 1996, pp. 19-22.
- 94. Philip Brasher, "Dairies Seek Disease Funding,' Associated Press, May 27, 2001.

Dan Morgan, "Farming's Chronic Woes Confront New USDA Chief: Rise

- in Direct Aid is Thorniest Issue," The Washington Post, Jan. 26, 2001, p. A21.
- 95. "How Many Americans Can the Earth Support?" (see #31).
- 96. Spoiled (see #10), pp. 193–194.
- 97. "The Grief Behind Foie Gras," People for the Ethical Treatment of Animals (fact sheet, www), May 15, 1997.
- 98. "Fishing at Sea Claims More Than 70 Lives a Day, FAO Says," Food and Agriculture Organization press release (01/02), Jan. 25, 2001. John Hendren, "No Experience Necessary to Operate Fishing Vessel" (www), Seattle Times, Apr. 22, 2001.
- 99. Power of Your Plate (see #18), pp. 12-14. 2001 Heart and Stroke Statistical Update (see #6), p. 3.
- 100. Conversation with John H. Martin, Ph.D., Assoc. Professor, Dept. of Animal and Food Sciences, University of Delaware. Georgetown. Jan. 19, 1998.
 - Kenneth B. Kephart, "Dead Pig Disposal" (www), PENPages, Feb. 1992.
- 101. "Scarcities to Force a Leaner Diet, Experts Say," The New York Times, Feb. 18, 1995, p. 22.

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The VIVAVEGIE SOCIETY IS A NONPROFIT, 501(C)3 charitable organization dedicated to public education about vegetarianism. When the group was formed in 1991, its sole objective was vegetarian street advocacy—reaching out to New York City pedestrians with the group's hallmark publication, "101 Reasons Why I'm a Vegetarian." Then, as now, founder Pamela Rice would wear a signboard—created by her sister, Julia Fauci—which reads "Ask Me Why I'm a Vegetarian." In 1992, VivaVegie outreach expanded to include a magazine to a paid membership. *The VivaVine* continues to publish four times a year.

In 1997, member Janet Bloor donated a "pea pod" costume to the group. Penelo Pea Pod quickly proved to be a spectacular success in drawing interest from pedestrians. Our grande dame of vegetableland has become an invaluable aid for VivaVegie activists distributing vegetarian literature.

In the spring of 1994, VivaVegie commissioned the construction of a full-size replica of a veal crate. First appearing on Mother's Day, 1994, the crate has been a powerful tool in building awareness about cruelty in today's food-animal production.

In the fall of 1993, the VivaVegie Society sent "101 Reasons Why I'm a Vegetarian" to every member of the U.S. Senate and House of Representatives. Including the current edition you hold in your hand, 145,000 copies of the "mighty convincer" now exist in print.

IVAVEGIE MAKES ANNUAL APPEARANCES at the Greenwich Village Halloween Parade, the Easter Parade on Fifth Avenue and Nathan's Fourth of July hot-dog-eating contest at Coney Island. Other events where the group projects its message include Earth

Day, Veal Ban Day, World Vegetarian Day and the Great American Meatout. Advocates also regularly participate in street fairs or go out on short notice setting up a table with pro-vegetarian literature for no special

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occasion at all.

Call 212-871-9304 to hear a hot-line message from the VivaVegie Society and the Vegetarian Center of New York City.

VivaVegie has regularly enjoyed news coverage of its activities, most notably from CNN, *The New York Times*, WNYC-Radio, *Time Out New York*, and New York 1.

HE FOUNDER OF THE VIVAVEGIE SOCIETY, AUthor of "101 Reasons Why I'm a Vegetarian," and *VivaVine* publisher, Pamela Rice, has lectured to university and high school audiences as

well as to vegetarian groups. She specializes in the environmental impact of society's meat-centered diet and government subsidies to the meat industry. In March 2000, along with the VivaVegie Society, Big Ap-

ple Vegetarians, and the Sierra Club Vegetarian Outings Group, she hosted a talk by New York City public advocate Mark Green. She



emceed BAV's awards dinner in December 1994 and its Vegan Jeopardy in February 1996. Ms. Rice was also the cocurator of a first-of-its-kind vegetarian art show at the Sunnen Gallery in the SoHo district of New York City in the spring of 1995.

Vegetarian Center of New York City

WITH THE AID OF NONPROFIT STATUS, which was obtained in 1997, the VivaVegie Society was able to open the Vegetarian Center of New York City in March 1999. The Center serves the vegetarian community as a clearinghouse for information on vegan products

and local restaurants. It functions as a meeting place for vegetarian groups as well as for VivaVegie's own programs. It also offers itself as an archive and a research room. VivaVegie invites you to support the Center with your volunteer help and tax-deductible contributions.

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