

# Intensive Poultry Production:

## Fouling The Environment

The poultry industry is a major cause of environmental degradation in the United States. It kills fish and other wildlife and it makes people sick. In nature, chickens and turkeys range in small flocks over wide areas contributing to the health and beauty of the land. In poultry factory farming, thousands of birds are crammed unnaturally into extremely small areas. Filth, ugliness and disease are the result of this unwholesome and unnatural confinement of living creatures.

U.S. slaughterhouses now kill more than 30 million birds every day, 10 billion birds a year (NASS). This carnage pollutes land, air, and water with diseased carcasses, feces, heavy metals, chemicals, bacteria, parasites, pathogen cysts, and viruses (Report 9). Poisoned well water is a major problem on the Delmarva Peninsula (the Eastern Shore of Maryland, Delaware, and Virginia), which slaughters over 600 million chickens a year, resulting in an annual 3.2 billion pounds of raw waste, 13.8 million pounds of phosphorous, and 48.2 million pounds of nitrogen (Harkin 11). A typical slaughter plant kills over a quarter of a million chickens per day and uses 2 million gallons of water per day (Lipton A18).

### Awash in Manure

- In the 1990s, poultry production in 5 West Virginia counties at the headwaters of the Potomac River, which nourishes the Chesapeake Bay, grew from 7 million birds a year to 100 million birds, now producing enough manure to cover “all 160 miles of Los Angeles freeways ankle deep” (Gerstenzang A7).
- U.S. chicken producers use a total of 2.2 million pounds of the antibiotic arsenic compound roxarsone each year. More than 95 percent of the roxarsone fed to chickens is excreted in chicken waste which is



photo by Garrett Seivold

regularly applied as fertilizer. The arsenic from these applications can leach into surface and ground water supplies and be transformed into inorganic arsenic, a known carcinogen (Hopey, 2008).

- The Delmarva Peninsula produces a million tons of manure a year, enough to fill a football stadium “to the top row, including all the concourses, locker rooms and concession areas” (Warrick & Shields A1, A22).
- In California, an egg factory with 837,000 caged hens produces 21,000 cubic yards of manure per year - “the equivalent of about 1,400 dump truck loads” (Dirkx A1).
- A poultry researcher states, “The amount of animal wastes produced in the U.S. is staggering. In chickens, for example, the daily production of wastes is essentially equal to the amount of feed used. This means for every truckload of feed that is brought onto the farm, a similar load of waste must be removed. **A one million hen complex, for example, produces 125 tons of wet manure a day**” (Bell 26).

# Factory Poultry Manure Harms Wildlife, Habitat, and Human Health

Poultry manure contains large amounts of nitrogen, phosphorous, and potassium. According to the Chesapeake Bay Foundation, though hog and dairy operations



photo by Debbie Behr

produce more manure than chicken or turkey operations, poultry litter - the mixture of fecal droppings, antibiotic residues, heavy metals, cysts, larvae, decaying carcasses, and sawdust the birds are forced to bed in - has 4 times the nitrogen and 24 times the phosphorous (Allison C7). The annual litter from a typical broiler chicken house of 22,000 birds contains as much phosphorous as in the sewage from a community of 6,000 people (Harkin 12). Excess nitrogen converts to ammonia and nitrates, burning the fragile cells of land plants and poisoning ground and surface waters. Concentrated poultry waste spawns excess algae that consume aquatic nutrients and block sunlight needed by underwater grasses. In decay, the algae suffocate fish. High levels of nitrate in groundwater used as drinking water can cause methemoglobinemia, a blood disorder in infants, known also as "blue baby disease" (Holleman 28).

Factory poultry manure contains heavy metals. The 5,100 tons of poultry manure produced daily in Arkansas dumps into the environment, each day, 3,100 pounds of manganese, 3,300 pounds of iron, 540 pounds of copper, 3,600 pounds of zinc, and 300 pounds of arsenic. Arsenic is "a known carcinogenic agent that when inhaled can cause cancer in humans, particularly lung cancer" (Holleman 29-30).

Factory poultry manure exposes fish, humans, and wildlife to diseases not normally found in the environment. When earthworms ingest soil containing chicken droppings infected with the cecal worm larvae that carry blackhead disease, wild turkeys, grouse, quail, and other wild birds who eat those worms get sick and die (Holleman 34-35).

*Pfiesteria piscicida* is a one-celled microbe that has been linked to the abundant excess of poultry and hog manure on the eastern United States seacoast, eating holes in flounder and in menhaden, a fish that is used in farm animal feedstuffs and as fertilizer (Weingarten F5). Humans exposed to the toxic aerosol released by *pfiesteria* have experienced neurological injury, headaches, skin sores, memory loss, stomach cramps, respiratory restriction, and violent moods (Barker 117, 129, 168). And even though "water pollution from dry poultry litter is greatest after it is spread on crop land" (Harkin 4), poultry litter is routinely applied to crop fields near the water. It is fed to cattle as well. In West Virginia, for example, "80,000 head of cattle, many raised adjacent to the chicken houses to take advantage of the litter-based feed, produce more waste" (Gerstenzang A7).

## Poultry Houses: Paradise for Pathogens and Other Pollutants

A 40 X 400 ft broiler chicken house holds 20,000 birds. A 5-lb bird gets only 0.8 sq ft of floor space (North & Bell 457-58). A 50 X 500 ft caged hen house holds 80,000-125,000 hens used for egg production. Each 16-inch-high cage holds 3-9 hens. Each hen has only 48-67 sq inches of wire to live on (UEP). Typically, 3 to 5



long metal houses sit side by side in the densely concentrated poultry and egg producing areas.

“Airborne contaminants in poultry confinement units include the mixture of agents comprising organic poultry dust - skin debris, broken feather barbules, insect parts, aerosolized feed, and poultry excreta - and a variety of immunogenic agents, such as viable bacteria and Gram-negative bacterial endotoxins. Industrial hygiene surveys in the chicken processing industry have demonstrated that poultry confinement workers are exposed to high concentrations of such respiratory toxicants” (Morris 195-196). Excretory ammonia fumes from the nitrogen in decomposing droppings damages the systems of both humans and birds (Morris; Carlile).

## Mounds of Dead Birds

In the Potomac Headwaters in West Virginia, 155,000 tons of annual waste from the more than 90 million birds confined in 870 poultry sheds have polluted local streams with poisonous coliform bacteria. These



small creeks and rivers enter the Potomac River, which provides drinking water for metropolitan Washington D.C. (Lipton A18). As the Report prepared for Senator Harkin's office points out, “Animal waste consists not only of manure and urine [in poultry, uric acid], but also

of dead animals, used bedding, waste feed, and other residual organic matter” (Harkin 5).

Each year, millions of chickens, turkeys, and ducks die of heat suffocation, drug reactions, crowding, stress, and disease before going to slaughter. An operation with 100,000 broiler chickens produces 1,000 lbs of dead birds - 250 birds - a day (Report 15). The bloated, decomposing bodies and skeletal remains of these birds are stuffed in trash cans inside, and piled outside, the poultry sheds. Eventually the carcasses are buried, burned, dropped down feed shoots, and dumped in unlined pits “which become cesspools of bacteria, leaching into groundwater” and local streams (Lipton A18).

## Desecrating the Environment

Areas of great natural beauty such as Arkansas and the southeastern United States are being turned into smelly, fly-infested places by the poultry industry. Wildlife habitat is destroyed to erect ugly new poultry houses, slaughtering plants, and workers' trailer parks. In Ac-

comac, Virginia, a Perdue slaughterhouse dumped chicken grease, bacteria, and ammonia into nearby Parker Creek, turning this once clean, thriving and beautiful creek into a gray, slimy, stinking mess (Report 37-38). In 1998, Tyson Foods was fined \$6 million for pollution of the Kitts Branch waterway in Worcester County, Maryland, which has become loaded with coliform bacteria, phosphorous, and nitrogen dumped by a single poultry slaughter plant in Berlin (James 1A).

With dwindling land to absorb the volume of poultry-house litter, dead birds, and slaughterhouse refuse, the industry is touting compost-

ing and other countertechnologies as partial solutions. These technologies will be costly, tedious, and time-consuming, and they will not address the root of the problem, including the huge consumption of fossil fuels and the intense cruelty.

Photo by Mercy For Animals

# What Can I Do?

- Don't blame the birds. They are the victims, not the makers of the problem.
- Become a vegan. When you eat animal products you consume many more plants indirectly than if you ate those plants directly. Learn to enjoy pastas, potatoes, rice dishes, vegetable stirfrys, soyburgers, tofu ice cream and other delicious foods made entirely from plants. Use your purchasing power to speed technological conversion to the production of all-vegetarian foods. The 30 million bushels of high-protein soybeans produced on the Delmarva Peninsula each year to feed chickens can be harvested directly for people. As long as there are people on the planet, food will have to be produced and someone will have to produce it. We can have jobs, health, peace, and a life to be proud of.
- Start changing your diet today. Order *Replacing Eggs* (\$1.50) and *Instead of Chicken, Instead of Turkey* (\$14.95) from United Poultry Concerns, P.O. Box 150, Machipongo, VA 23405-0150.

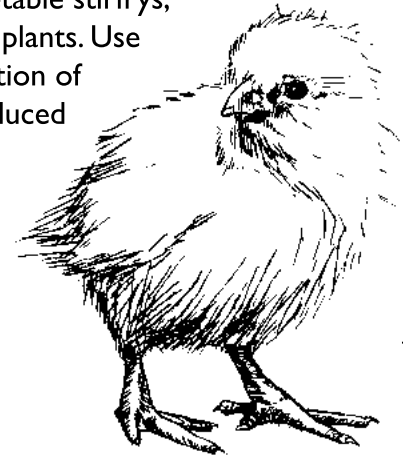


Illustration by Dana Baird

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For a detailed look at modern poultry & egg production issues, see *Prisoned Chickens, Poisoned Eggs: An Inside Look at the Modern Poultry Industry* by Karen Davis, PhD. Summertown: TN: Book Publishing Company. 1996. Revised Edition 2009. \$14.95



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