

COW'S MILK: A CRUEL AND UNHEALTHY PRODUCT

Cows who are allowed to roam free in pastures and care for their young form lifelong friendships with one another. They also play games, have a wide range of emotions, and demonstrate characteristics, such as vanity, and actions, such as holding grudges, that are generally associated with humans. But most cows raised for the milk industry are intensively confined and are not allowed to nurse their calves-even for one day. They are treated as little more than milk-producing machines and are genetically manipulated and fed a steady diet of antibiotics and hormones that force them to produce more milk. Humans continue to consume dairy products despite overwhelming scientific evidence indicating that cow's milk is linked to heart disease, cancer, diabetes, and many other ailments.

Cows Suffer on Dairy Farms

Cows produce milk for the same reason that humans do—to nourish their young—but calves born on dairy farms are taken from their mothers when they are just 1 day old and fed milk replacers (including cattle blood) so that humans can have the milk instead.^{1,2}

Female cows are artificially inseminated shortly after their first birthdays.³ After giving birth, they lactate for 10 months, then they are re-inseminated, and the cycle starts again. Some spend their entire lives standing on concrete floors; others are crammed into massive mud lots. Cows have a lifespan of about 25 years and can produce milk for eight or nine years, but the stress caused by factory-farm conditions leads to disease, lameness, and reproductive problems that render cows worthless to the dairy industry by the time they are 4 or 5 years old, at which time they are sent to the slaughterhouse.⁴⁵

On any given day, there are more than 9 million cows living on U.S. dairy farms—about 13 million fewer than there were in 1950. Yet milk production has continued to increase, from 116 billion pounds per year in 1950 to 170 billion in 2003.^{6.7} Although these animals would naturally make only enough milk to meet the needs of their calves (around 16 pounds a day), genetic manipulation, antibiotics, and hormones are used to force each cow to produce more than 18,000 pounds of milk a year (an average of 50 pounds a day).^{8.9} Cows are also fed unnatural, high-protein diets,

which include dead chickens, pigs, and other animals, because their natural diet of grass would not provide the nutrients necessary for them to produce the massive amounts of milk required by the industry.¹⁰

Mastitis

Painful inflammation of the mammary glands, or mastitis, is common among cows raised for their milk and is one of the reasons most frequently cited by dairy farms for sending cows to slaughter. There are about 150 bacteria that can cause the disease, one of which is E. coli.11 Symptoms are not always visible, so the somatic cell count (SCC) of milk is checked to determine the presence of infection. Somatic cells are a combination of white blood cells and skin cells that are normally shed from the lining of the udder. Just as in humans, white blood cells, sometimes referred to as "pus," are produced to combat infection. The SCC of healthy milk is below 100,000 cells per milliliter, but the dairy industry is allowed to combine milk from the teats of all the cows in a herd to arrive at a "bulk tank" somatic cell count (BTSCC) and can sell milk with a maximum BTSCC of 750,000 cells per milliliter.^{12,13} A BTSCC of 700,000 or more generally indicates that two-thirds of the cows in the herd are suffering from udder infections.14

Studies have shown that providing cows with cleaner housing, more space, and better diets, bedding, and care lowers the SCC of their milk and their incidence of mastitis.¹⁵ A Danish study of cows subjected to automated milking systems found "acutely elevated cell counts during the first year compared with the previous year with conventional milking. The increase came suddenly and was synchronized with the onset of automatic milking."¹⁶ Yet instead of improving conditions on factory farms or easing cows' production burden, the dairy industry is exploring the use of cloned cattle who have been genetically manipulated to be resistant to mastitis.¹⁷

The Veal Connection

While female calves are slaughtered or added to the dairy herd, male calves are taken from their mothers when they are as young as 1 day old and are chained inside tiny stalls for three to 18 weeks to be raised for veal.^{18,19} They



PEOPLE FOR THE ETHICAL TREATMENT OF ANIMALS 501 FRONT STREET NORFOLK, VA 23510 757-622-PETA • PETA.org are fed a milk substitute that is designed to make them gain at least 2 pounds per day, and their diet is purposely low in iron so that their flesh stays pale as a result of anemia.²⁰ An enzyme from their stomachs is used to produce rennet, an ingredient used in many cheeses.²¹ Calves raised for veal commonly suffer from diarrhea, pneumonia, and lameness.

Environmental Problems

Large dairy farms have a detrimental effect on the environment. In California, America's top milk-producing state, manure from dairy farms has poisoned hundreds of square miles of groundwater, rivers, and streams. Each of the state's more than 1 million dairy cows excretes 120 pounds of waste every day-an amount equal to the waste of two dozen people.²² Overall, animals on factory farms, including dairy farms, produce 500 million tons of manure each day, much of which ends up in our waterways and drinking water. The Environmental Protection Agency reports that agricultural runoff is the primary cause of polluted lakes, streams, and rivers.23

Eighty percent of all agricultural land in the U.S. is used to raise animals for food or to grow grain to feed them—that's almost half the total land mass of the lower 48 states.²⁴ Each cow raised by the dairy industry drinks as much as 50 gallons of water per day.²⁵ Along with chickens, pigs, and other animals raised for food, cows are the primary consumers of half the water in the U.S.²⁶

Human Bodies Fight Cow's Milk

Besides humans (and domesticated animals who are fed by humans), no other species drinks milk beyond infancy or drinks the milk of another species. Cow's milk is suited to the nutritional needs of calves, who unlike human infants—have four stomachs and gain hundreds of pounds in a matter of months, sometimes weighing more than 1,000 pounds before their second birthdays.²⁷ Cow's milk also contains about three times as much protein as human milk.^{28,29}

Cow's milk is the number one cause of food allergies among infants and children, according to the American Gastroenterological Association.³⁰ Most people begin to produce less lactase, the enzyme that helps with the digestion of milk, when they are as young as 2 years old. This reduction can lead to lactose intolerance.³¹ Millions of Americans are lactose-intolerant, and an estimated 90 percent of Asian-Americans and 75 percent of Native- and African-Americans suffer from the condition, which can cause bloating, gas, cramps, vomiting, headaches, rashes, and asthma.³² Studies have also found that autism and schizophrenia in children may be linked to the body's inability to digest the milk protein casein; symptoms of these diseases diminished or disappeared in 80 percent of the children who were switched to milk-free diets.³³

A U.K. study showed that people who were suffering from irregular heartbeats, asthma, headaches, fatigue, and digestive problems "showed marked and often complete improvements in their health after cutting milk from their diets."³⁴

Calcium and Protein Myths

Although American women consume tremendous amounts of calcium, their rates of osteoporosis are among the highest in the world. Conversely, Chinese women consume half the calcium (all of it from plant sources) and have scant incidence of the bone disease.³⁵ Medical studies indicate that rather than preventing the disease, milk may actually increase women's risk of osteoporosis. A Harvard Nurses' Study of more than 77,000 women aged 34 to 59 found that those who consumed two or more glasses of milk per day had higher risks of broken hips and arms than those who drank one glass or less per day.³⁶ T. Colin Campbell, professor of nutritional biochemistry at Cornell University, said, "The association between the intake of animal protein and fracture rates appears to be as strong as that between cigarette smoking and lung cancer."37

Protein deficiency (or "kwashiorkor") is very rare in the United States and is usually only a problem for those living in faminestricken countries.³⁸ Consumption of excessive protein from dairy products, eggs, and meat has been linked to the formation of kidney stones and has been associated with cancer of the colon and liver.^{39,40} It is also suspected of putting a strain on the kidneys, which take calcium from the bones to compensate.⁴¹ Humans can get all the protein that they need from legumes, nuts, seeds, yeast, and tofu.

What You Can Do

The best way to save cows from the misery of factory farming is to stop buying milk and other dairy products. Discover the joy of soy! Fortified soy and rice milks provide calcium, vitamins, iron, zinc, and protein but contain no cholesterol. Soy and rice milks are perfect for cereal, coffee, and soups and also work well in baked goods and other recipes. Many delicious dairy alternatives—such as almond, rice, oat, or soy milk and Soy Dream and

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Tofutti brand "ice cream"—are available in health and grocery stores.

Vegetarianism and veganism mean eating for life—yours and animals'. Call 1-888-VEG-FOOD or visit GoVeg.com for a free vegetarian starter kit.

References

¹David Goldstein, "Up Close: A Beef With Dairy," KCAL, 30 May 2002.

²⁴Mad Cow Casts Light on Beef Uses," *Los Angeles Times*, 4 Jan. 2004.

³David R. Winston, "Goals for Heifer Rearing," Department of Dairy Science, Virginia Polytech University, 1 Oct. 1996.

⁴Anne Karpf, "Dairy Monsters," *The Guardian*, 13 Dec. 2003.

⁵Richard L. Wallace, D.V.M., M.S., "Market Cows: A Potential Profit Center," University of Illinois at Urbana-Champaign, 2004.

⁶National Agriculture Statistics Service, "Milk Production," United States Department of Agriculture, 17 Feb. 2004.

^{*}Don P. Blaney, *The Changing Landscape of U.S. Milk Production*, Statistical Bulletin Number 978, United States Department of Agriculture, Jun. 2002. ^{*}*Ibid.*

⁹David Pace, "Feeding a Bucket Calf," Oklahoma Cooperative Extension Service, Oklahoma State University. ¹⁰"Mad Cow Case Casts Light on Beef Uses," *Los Angeles Times*, 4 Jan. 2004.

¹¹Helen Pearson, "Udder Suicide, E. Coli Kill off Milk-Making Mammary Cells," *Nature*, 6 Aug. 2001.

^{12"}Guidelines on Normal and Abnormal Raw Milk Based on Somatic Cell Counts and Signs of Clinical Mastitis," National Mastitis Council, 2001.

¹³P.L. Ruegg, "Practical Food Safety Interventions for Dairy Production," *Journal of Dairy Science*, 86 (2003): E1-E9.

¹⁴National Mastitis Council.

¹⁵S. Waage *et al.*, "Identification of Risk Factors for Clinical Mastitis in Dairy Heifers," *Journal of Dairy Science*, 81 (1998): 1275-84.

¹⁶Morten Dam Rasmussen *et al.*, "The Impact of Automatic Milking on Udder Health," Proceedings of the Second International Symposium on Mastitis and Milk Quality, Vancouver, B.C.: 2001.

¹⁷Michael Raine, "Cloning—New Era in Breeding Technology Raises Hopes, Concerns," *The Western Producer*, 17 Jul. 2002.

¹⁸Susan C. Kahler, "Raising Contented Cattle Makes Welfare, Production Sense," *Journal of the American Veterinary Medical Association*, 15 Jan. 2001.

¹⁹Food Safety and Inspection Service, "Safety of Veal, From Farm to Table," United States Department of Agriculture, Feb. 2003.

²⁰John M. Smith, "Raising Dairy Veal," Ohio State University, information adapted from the *Guide for the Care and Production of Veal Calves*, 4th ed., 1993, American Veal Association, Inc.

²¹"Chymosin and Cheese Making," The European Food

Information Council, 2003 <http://www.eufic.org/gb/tech/tech02e.htm>.

²²Marla Cone, "State Dairy Farms Try to Clean Up Their Act," *Los Angeles Times*, 28 Apr. 1998.

²⁹John Heilprin, "Bush Issues Rule for Factory-Style Farms," Associated Press, 16 Dec. 2002.

²⁴Marlow Vesterby and Kenneth S. Krupa, "Major Uses of Land in the United States, 1997," Statistical Bulletin Number 973, United States Department of Agriculture, 1997.

²⁵Rick Grant, "Water Quality and Requirements for Dairy Cattle," *NebGuide*, Cooperative Extension, Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln, 1996.

²⁶Bill McKibben, "Taking the Pulse of the Planet," *Audubon*, Nov. 1999: 104.

^{27"}Beef Cattle Farming in Ontario," Ontario Farm Animal Council, 12 Feb. 2004 <http://www.ofac.org /index.html>.

²⁸USDA National Nutrient Database for Standard Reference, "Milk, Whole, 3.25% Milkfat," 16 Jul. 2003.

²⁹USDA National Nutrient Database for Standard Reference, "Milk, Human, Mature, Fluid," 16 Jul. 2003.

³⁰American Gastroenterological Association, "American Gastroenterological Association Medical Position Statement: Guidelines for the Evaluation of Food Allergies," *Gastroenterology* 120 (2001): 1023-5.

³¹National Digestive Diseases Information Clearinghouse, "Lactose Intolerance," National Institute of Diabetes and Digestive and Kidney Diseases, Mar. 2003.

³²Courtney Taylor, "Got Milk (Intolerance)? Digestive Malady Affects 30-50 Million," *The Clarion-Ledger*, 1 Aug. 2003.

^{33"}Milk Protein May Play Role in Mental Disorders," Reuters Health, 1 Apr. 1999.

³⁴Severin Carrell, "Milk Causes 'Serious Illness for 7M Britons.' Scientists Say Undetected Lactose Intolerance Is to Blame for Chronic Fatigue, Arthritis and Bowel Problems," *The Independent*, 22 Jun. 2003. *Karof.

³⁶D. Feskanich *et al.*, "Milk, Dietary Calcium, and Bone Fractures in Women: A 12-Year Prospective Study," *American Journal of Public Health*, 87 (1997) 992-97. ³⁷Karpf.

³⁸U.S. National Library and the National Institutes of Health, "Kwashiorkor," MEDLINEplus Medical Encyclopedia, 5 Jan. 2004 http://www.nlm.nih.gov/medlineplus/ency/article/001604.htm>.

³⁹Gary C. Curhan *et al.*, "A Prospective Study of Dietary Calcium and Other Nutrients and the Risk of Symptomatic Kidney Stones," *The New England Journal of Medicine* 328 (1993): 833-8.

⁴⁰Kathleen M. Stadler, "The Diet and Cancer Connection," Virginia Tech, Nov. 1997 <http://www.ext.vt.edu /pubs/nutrition/348-141/348-141.html>. ⁴¹Karpf.

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