

the federal government's failure to develop adequate safeguards against trichinosis, the exclusion of pork and pork fat from hamburgers suggest that beef producers had more influence in government circles than pork producers. If true, this would be the natural outcome of a basic difference in the organization of the two industries which has persisted since the late nineteenth century. Beef production has long been dominated by a relatively small number of very large ranches and feedlot companies, while pig production has been carried out by a relatively large number of small-to-medium farm units. As the more concentrated of the two, the beef industry is probably better able to influence the Department of Agriculture's regulations.

A touchy issue remains. The cheapest sources of lean hamburger meat lie overseas in countries like Australia and New Zealand which have low population densities and plenty of rangeland. If the fast-food chains had their way, they would buy most of their lean beef from abroad. To prevent this from happening the federal government has set up quotas restricting beef imports. Even with these quotas almost 20 percent of all the ground beef that Americans consume is foreign beef. No one knows exactly how foreign beef gets into the consumer's stomach. Once it clears customs no agency records where it goes or what the processors do with it. Some of the fast-food restaurant chains make a point of claiming that their hamburgers are both 100 percent beef and 100 percent American. Others remain silent, adding one more mystery to America's meat-eating ways.

To sum up, beef achieved its recent ascendancy over pork through the direct and indirect influence of all-beef fast-food hamburgers. By combining unfinished range-fed beef with surplus fat from beef feedlots, fast-food chains were able to overcome the pig's natural superiority as a converter of grains to flesh. The U.S.D.A.'s abomination of pork hamburgers as a taxonomic anomaly therefore bears more than a metaphorical resemblance to the taboos of Leviticus. In mediating the age-old struggle between pigs—consummate eaters of grain—and cattle—consummate eaters of grass—the U.S.D.A. had followed ancient precedents. By

endowing hamburgers with an all-beef identity, it placed an embarrassment of spirit on the choice of flesh and made beef holier than pork.

The story of America's changing tastes in meat does not end with the triumph of beef over pork. Both of these red meats are being threatened by the rise of fast-food, frozen, and fresh forms of chicken. Americans are now eating 54 pounds of chicken meat per year. While adverse medical findings and rising retail prices have led United States consumers to eat 15 pounds less of beef per capita since 1976, consumption of chicken has zoomed by 11.2 pounds. If these trends continue, Americans will be eating more chicken than beef by the end of the century.

The chicken revolution was long overdue. By nature and breeding, chickens are about as efficient as pigs in converting grain to meat and five times more efficient than cattle. Some of the newest breeds are designed to exceed the efficiency of pigs and convert 1.92 pounds of high-protein feed to one pound of meat, mostly concentrated on the breast. Various technical problems—the susceptibility of chicken flocks to communicable disease, the chickens' tendency to peck each other to death in establishing "pecking orders" within crowded coops, and the difficulty of determining the sex of chicks for flock management—prevented their mass production potential from being realized. These obstacles have been overcome by dosing them with antibiotics, debeaking them with a cauterizing iron, and breeding male chicks to have longer wings than female chicks. Chickens are now "manufactured" in batches of thirty thousand per chicken house, each bird getting less than a square foot of cage to live in. Temperature regulation, ventilation, and waste removal are all automatic. Lights burn twenty-two hours a day to keep them awake so that they can eat nonstop. In forty-seven days after hatching, they weigh over four pounds and are ready to be marketed, half as many days as it took in 1950. In a major brand-name factory, the birds are killed, plucked, eviscerated, cooled, and boxed by automated machines at the rate of 1.5 birds per second. As a result of these innovations, chicken prices have barely risen over the past decade, and chicken