

feasting on the endless sea of grass and multiplying faster than they could be butchered. So cheap was the meat from these animals that the army paid ranchers to supply the Indian reservations with beef, to prevent the Indians from starving. Civilian markets could only be reached by cowboys and cattle over long trails, some extending from Texas to cities as far away as Chicago and New Orleans. But railroads soon put an end to marathon western cattle drives just as they had put an end to long-distance pig drives in the East. Even before the rails crossed the cattle trails at Dodge City, Abilene, and Kansas City, beef entrepreneurs were building stockyards, and filling them with cattle awaiting the arrival of the first train. Off the cattle went to be butchered and packed in Chicago, which after the Civil War had replaced Cincinnati as butcher to the world, or to the cities of the East, where they were slaughtered locally and sold as fresh meat. After two or three days in the crowded, swaying cars, the cattle staggered off bruised and ill, prompting a public outcry for a more humane mode of transport. The beef entrepreneurs saw the problem from a slightly different angle. Anyone who could figure out how to cut western steers into sides shipped fresh from Chicago would not only satisfy the animal protectionists but save the cost of transporting 35 percent to 40 percent of the animals—hides, bones, offal—which could be processed for industrial uses just as profitably in Chicago as in New York or Boston. Laying the meat directly on ice gave it "ice-burn." True refrigerator cars, introduced in 1882 by Gustavus Swift for the run between Chicago and New York, kept the ice in special compartments, chilling the air which circulated around the sides of beef hooked to overhead trolleys. The beef barons and packing-house owners—Armour, Swift, Cudahy, Morris—bought up the railroads, cornered the grain markets, and became as rich as modern-day oil sheiks.

But the sea of grass on which the nineteenth-century beef bonanza was premised proved to be as vulnerable as the Indians and the buffaloes. Overgrazing on the lush parts of the Great Plains and homesteading by farmers dispersed ranching farther

west to arid regions remote from railroads and midwestern stockyards. More feedlot finishing on corn was needed to bring range cattle up to the market weight; beef lost its price advantage over pork; and per capita beef consumption fell from a peak of 67.1 pounds at the turn of the century to 54.9 pounds in 1940. The rangeland beef boom had greatly narrowed the difference between pork and beef consumption, but it did not last long enough to close the gap. In 1900, there was still a 4.8-pound-per-person advantage in favor of pork, and as the twentieth century wore on, the difference increased until on the eve of World War II Americans were back to eating 18.6 pounds more pork per person than beef. It seemed as if the pig's incomparable gut was going to have the last laugh as long as both beef and pork production continued to depend primarily on the conversion of grains into flesh.

But the race was not over; the triumph of beef over pork was only a few years away. By the 1950s Americans were eating equal amounts of beef and pork; by the 1960s they were eating 10 pounds more of beef; and by the 1970s this advantage had increased to 25 pounds. Finally, during the all-time peak meat-eating year of 1977, Americans consumed almost twice as much beef as pork: 97.7 pounds of beef per person to 53.7 pounds of pork, a difference of 44 pounds per person per year.

How did beef finally manage to become king? Through a combination of changes in the beef production and marketing systems which were ideally suited to the emergent life-styles of post-World War II America. As the twentieth century wore on, rangeland played an ever-decreasing role in United States beef production. Time spent on raising "feeders" (calves that will be sent to feedlots) and the time spent on finishing have grown shorter and shorter. With improved breeds, planted pasture, and scientific management, feeders can now be brought to four hundred pounds in four months. Farmers then sell them for shipment to feedlots where they are induced to eat a mixture of protein-rich soybeans, fish meal, calorie-rich corn, sorghum, and vitamins, hormones, and antibiotics all roasted to optimum temperature.