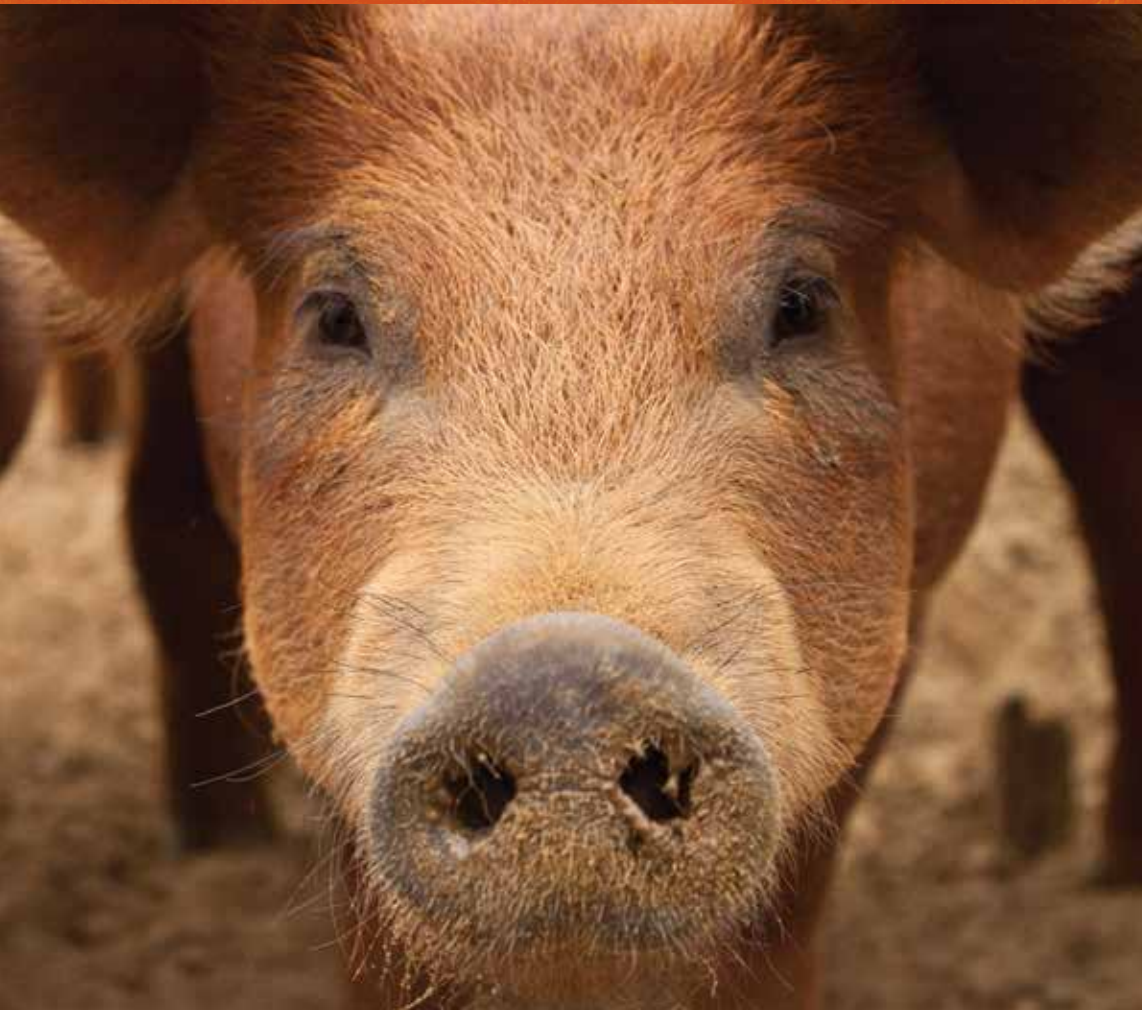


HUSBANDRY

THE OTHER WHITE MEAT

HOW SCIENCE AND MARKETING
REBOOTED THE PIG

by Mark Essig



COWS ARE FOREVER STANDING IN FIELDS chewing grass, but you never know where you might find a pig. Over the past ten millennia, domestic swine have rooted clams from mudbanks, lapped up whey at dairies, gobbled chestnuts in forests, and “hogged down”—a technical term—crops in the field. They have been known to slurp snakes like ramen noodles.

Pigs are omnivores. That has been their virtue and their sin. Dietary flexibility meant that even the poorest people could fatten pigs at virtually no expense. It also meant that pigs ate filth: garbage, carrion, feces. Jews rejected swine as filthy, and Muslims followed suit. Christians fretted but embraced swine nonetheless—pigs were too useful to do without. They reproduce at astonishing rates and convert feed to meat on a tight ratio. Unlike beef and mutton, pork only improves when cured—crucial in the centuries before artificial refrigeration.

Romans feasted on pork with abandon, while peasants in Europe and pioneers in the United States salted it away against lean times. Though Americans considered themselves beef eaters, that was a matter of aspiration more than reality: For most of our history, we ate far more pork than beef. It was cheaper and kept better.

After World War II, however, more Americans moved to the city and earned enough money to buy beef and store it in their new refrigerators. Later, worried about fat, they switched to chicken. Pork was the food of the poor, and America was growing richer.

THE AMERICAN PORK INDUSTRY WAS FLOUNDERING . It would take all the brainpower and ingenuity of American government, universities, marketers, and pharmaceutical companies to set it right. By the 1960s, those resources were at the ready. Over the next four decades, the pork industry changed what pigs ate, where they lived, and how fat they grew. While they were at it, the experts went ahead and changed the color of pork from red to white.

In 1986 leaders of the National Pork Producers Council gathered in a darkened room to hear their advertising agency pitch a new industry tagline: “Pork—the Other White Meat.” When the lights came on after the two-hour presentation, the pork producers found themselves “in a state of shock,” one executive recalled. Hog farmers, along with everybody else, had always viewed pork as a red meat, in competition with beef. Now they were being asked to spend good money promoting

it as an alternative to chicken. According to National Hog Farmer, many thought it was a “dumb idea.”

But these were desperate times, so pork producers took the plunge. Since the 1970s, sales of poultry had soared as consumption of beef and pork plummeted. Studies linking red meat to heart disease and cancer had taken a toll, and Americans had become fearful of fat. In one survey more than a third of Americans agreed with the statement “Pork would be a good meat except for the fat.” The new campaign would convince people that pork was not bloody and fatty like beef but pale and lean like chicken.

With ice-skating star Peggy Fleming as spokeswoman, the pork industry launched the new marketing campaign at a January 1987 New York press event attended by the editor of *Better Homes & Gardens* and national television news reporters. Before the year was out, the advertising bill ran to more than \$9 million. Almost immediately, the campaign was deemed a success. Eight out of ten Americans recognized the phrase “the other white meat,” which lodged itself in that special place in the American mind that holds slogans like “Got Milk?” and “Just Do It.” In 2011 *Adweek* deemed the campaign “among the most successful rebranding moves in the history of the food biz.”

But it was more than a rebranding. The new slogan marked the culmination of a transformation in American farming. In 1945 pigs, bred by small farmers and raised outdoors on corn, grew thick layers of fat under their skin. By 1985, raised indoors on scientifically formulated feed and bred to exacting standards by large corporations, they produced very lean meat. The same qualities that suited pigs to small-scale production—fecundity and rapid growth—also made them perfect for industrial farming. In seeking to rebrand their product, pork producers had not just changed their tagline. They had created a new pig.

THE CORN BELT WAS HOME to the “lard-type” hog, as opposed to the “bacon type” or “meat type.” The leaner meat hogs—which included breeds like the Danish Landrace, Tamworth, and Large Yorkshire—had a thin layer of back fat and were often cured as bacon for the British market. The primary producers of these bacon-type pigs were Denmark, Canada, and Ireland, where pigs ate protein-rich dairy by-products that promoted lean muscle growth. Pigs that ate mostly corn—higher in carbohydrates than protein—ran to fat, which is why the Corn Belt became the center of global lard production.

Corn Belt farmers historically had depended on the “lard-type” breeds—Poland China, Berkshire, Chester White, and Duroc Jersey—in response to market demands. Bulk purchasers of barreled meat—used to feed miners, sailors, and slaves—preferred fatty meat because it preserved better. There was also a big demand for pig fat as an industrial lubricant and cooking fat. Under some market conditions, a pig’s fat was more valuable than its flesh, and packers dumped hogs into the rendering vats, wasting all of the meat in order to extract the precious lard.

Lard, however, became increasingly less valuable, a shift that started in the late nineteenth century and accelerated with each passing decade. After John D. Rockefeller’s Standard Oil Company developed the oil fields of Pennsylvania, factory workers began to oil their machines with petroleum products rather than animal fats. Thanks to better technology for both canned food and artificial refrigeration, sailors and laborers could enjoy foods other than fatty pork. More people turned to vegetable oils such as soybean, peanut, and corn, which allowed a simple production cycle—grow plants and extract their oil—rather than the extra step required with animals: Grow plants, feed plants to pigs, extract fat from pigs. Health concerns about animal fats arose after World



War II, and brands such as Crisco advertised their vegetable shortenings as healthier than animal fat. All of these factors contributed to a single result: Demand for lard plummeted, and so did its price.

In response, scientists and farmers worked to breed leaner hogs. Their model was Denmark, the first specialist in intensive hog production and America's key rival in the global pork market. In 1907 the Danes had created swine testing stations to carefully monitor feed intake and carcass quality, allowing them to choose breeding stock from those animals that gained the most lean muscle while eating the least feed. American agricultural colleges developed similar testing programs, and the US Department of Agriculture (USDA) created new genetic lines to distribute to farmers. The meatpacker Hormel awarded prizes to farmers who raised the leanest pigs, and the private breed registries changed their standards as well. The Hampshire registry, for instance, specified that hogs should have no more than 1.8 inches of back fat and a pork chop measuring at least four inches square. In the 1950s, a 180-pound hog carcass yielded thirty-five pounds of lard. By the 1970s, a pig of the same size produced just twenty pounds of lard.



SCIENTISTS AND FARMERS HAD CREATED “the other white meat.” Although the phrase originated in a marketing slogan, in one sense it was literally true. Scientists from Texas A&M University showed that a factory-farmed pork loin’s levels of myoglobin—the protein responsible for redness—were much lower than those of beef and comparable to those in chicken or fish. That pale color owed much to the new farming methods. Myoglobin carries oxygen to working muscles: The less a muscle works, the paler its color. Chicken breasts are white because those muscles are never used for flying. Crated veal is pale because the calf had no room to walk. Pigs raised on pasture had meat of a darker hue. By the 1980s pork had become a white meat because confinement pigs, packed in small pens, rarely used their muscles.

Whether customers preferred meat from these new pigs was a different question. After an initial boost spurred by the campaign, pork sales leveled off. People started thinking of pork as white meat, but they didn’t start buying much more of it: per capita pork consumption stayed level at just under fifty pounds from the 1980s through the 2000s. Meanwhile, consumption of chicken—the original white meat—kept climbing, from fifty-four to sixty-nine pounds per capita.

In all of this innovation, one aspect of pork production was ignored: flavor. At an industry conference in the 1960s, an animal scientist at Oklahoma State University observed that in the rush to create lean pigs, “pork quality has been completely ignored by swine breeders.” In 2000, industry experts writing in *National Hog Farmer* came to the same conclusion: “Currently, industry breeding schemes create pigs that grow fast and efficiently but lack the superior meat and eating quality consumers prefer.”

One quality problem, identified in the 1960s and still unsolved, is “pale, soft, and exudative” pork, which is gray, mushy, and tasteless. This meat, it turned out, came from skinny, neurotic pigs. “Their personalities are completely different,” the animal scientist Temple Grandin wrote of the lean pigs. “They’re super-nervous and high-strung,” and the stress appeared to be damaging their meat. Such pigs also had a tendency to drop dead of shock. As a group of veterinarians explained, such pigs “show an increase in carcass lean but much greater susceptibility to sudden death.”

In creating lean pigs, American pork producers had created a new set of problems, of which meat quality was only the most obvious. Modern pig farming, many critics charged, destroyed small farms, fouled land and water, and threatened public health. Most of all, the critics said, the new farms made pigs miserable—a charge that, by the turn of the twenty-first century, was becoming harder to refute. 🐷

Excerpted from *Lesser Beasts: A Snout-to-Tail History of the Humble Pig* by Mark Essig. Available May 2015 from Basic Books, a member of The Perseus Books Group. Copyright © 2015. PHOTO, PAGE 12, by Chris Fowler. PHOTO, PAGE 14, by Paul Callan.