

LEANER PORK
for a
HEALTHIER AMERICA

Looking Back on the
Northeast Iowa Swine Testing Station



AMERICAN EATING HABITS AND DIET HAVE CHANGED OVER THE YEARS. THIS 1918 "LADIES HOME JOURNAL" ADVERTISEMENT PICTURES SWIFT & COMPANY'S PREMIUM HAM, SURROUNDED BY SYMBOLS OF SOCIAL GRACE AND DOMESTIC COMFORT. A YOUNG MATRON PROUDLY SEES HER WELL-APPOINTED TABLE SERVED, WHILE HER HUSBAND AND FRIEND LOOK ON WITH ANTICIPATION. THE HAM TYPIFIES THE HIGH-FAT PRODUCT SO PREVALENT IN AMERICA AT THE TIME. FAT IS CLEARLY VISIBLE AND MORE WOULD BE MARBLED THROUGHOUT THE HAM. COMPARE THIS MEAL WITH THE ONE FOUND INSIDE THE BACK COVER OF THIS BOOKLET.





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Northeast Iowa Swine Testing Station

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Since 1880 the State of Iowa has held the blue ribbon as the nation's largest pork producer, but by the 1960s, pork had declined in favor among Americans. About the same time, new ideas about diet and the nutritional value of pork prompted animal researchers, the pork industry, and pork producers to seek ways to increase the nation's consumption of this healthy food. Improved breeding practices began to produce leaner hogs with higher protein levels. Then, in the 1980s, massive marketing efforts, funded by a new national "check-off" program, succeeded in promoting pork as healthful and tasty. Because of all these efforts, pork has re-emerged today as a popular food on the American table.

This booklet tells how the Northeast Iowa Swine Testing Station at New Hampton, Iowa, contributed to this recent chapter in the history of agriculture. Established in 1960, this station, along with five others in Iowa and a few scattered around the nation, helped to produce leaner hogs by providing farmers with objective data on gain, efficiency, and meatiness for tested boars of all breeds. This scientific data significantly aided pork producers to improve their herds by identifying those animals that possessed the most desirable genes for breeding.

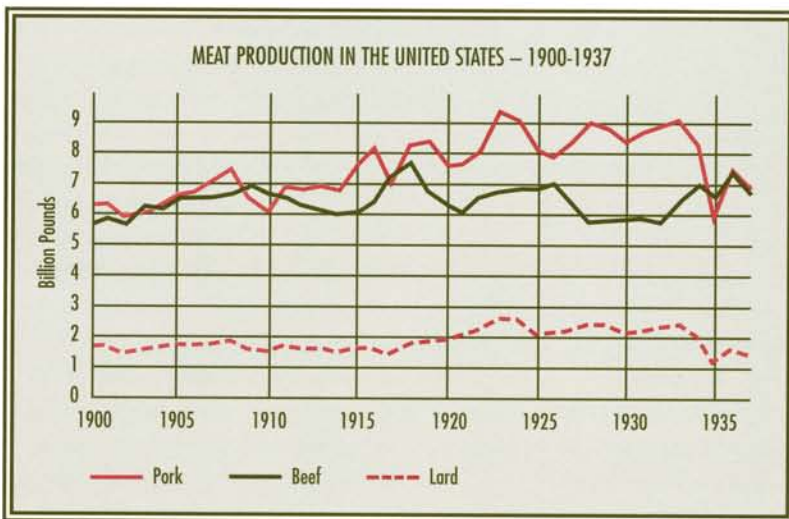
Recently, the Iowa Department of Transportation's plan to construct a Highway 63 bypass near the New Hampton facility prompted historians, under the National Historic Preservation Act, to research this interesting story. The testing station at New Hampton is the only surviving swine testing station in Iowa, but its Show and Sales Barn—the largest structure on the site—was situated in the path of this bypass. Although the barn could not be preserved, an agreement between concerned government agencies resulted in this publication in partial mitigation of those effects. The author is solely responsible for the historical interpretation presented in this booklet.

PORK PRIMER

IOWA HUMORIST ELLIS PARKER BUTLER ONCE WROTE THAT “PIGS IS PIGS.” BUT ARE THEY? LET’S PLACE THE NORTHEAST IOWA SWINE TESTING STATION IN HISTORICAL CONTEXT.

People and pigs have lived in domestic closeness for thousands of years. Although pigs are not native to America, the earliest European settlers brought these valuable commodities to the western hemisphere. Throughout the Seventeenth and Eighteenth Centuries, most families in America raised some pigs for their own use, some produced pork for limited markets, and in New England a fledgling

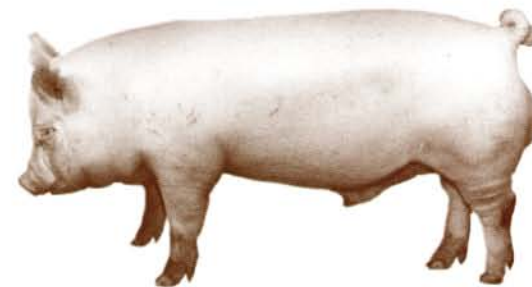
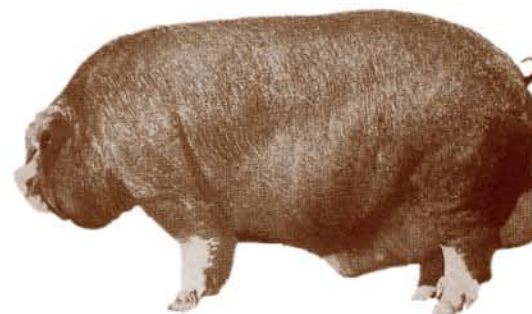
industry arose curing pork for trade with the West Indies. Salt pork and bacon were staple foodstuffs of the Continental Army and helped it win the American Revolution. Early in the Nineteenth Century, Cincinnati, Ohio, became the nation’s premier center for the meat packing of pork, capitalizing on its location in a farming region and as a port along the Ohio River. During the Civil War, this trade was disrupted, and in the 1870s, Chicago emerged as the “hog butcher for the world” because of its rich corn-producing hinterlands and vast railroad network. (American farmers had learned in the Nineteenth Century that hogs efficiently converted corn into meat.)



AMERICANS' CONSUMPTION OF PORK EXCEEDED THAT OF BEEF DURING MUCH OF THE EARLY TWENTIETH CENTURY. (Hinman and Harris)

the shape of ears—are visual, while others—like mothering ability, siring capabilities, and the number of piglets produced—have to do with personality. Three breeds sport white as the primary color—Chester White, Landrace, and Yorkshire. The Hampshires are primarily black in color and visually distinctive by a wide white stripe down the front legs and body. Berkshires and Poland Chinas are also black in color but bear patches of white on feet and head. Each breed has an American breeders'

Swine come in distinct breeds. Eight are now recognized in the United States. Some came to America from Europe, and others developed as clearly distinct breeds from selection efforts in this country. The major breeds include the Berkshire, Chester White, Duroc, Hampshire, Landrace, Poland China, Spotted, and Yorkshire. Each of these breeds has characteristics particular to it. Some—like color or



SWINE TESTING STATIONS PROMOTED THIS GENETIC CHANGE:

“LARD-TYPE” PIG

THE “LARD-TYPE” PIG ENJOYED GREAT POPULARITY IN THE EARLY TWENTIETH CENTURY. MUCH OF THE ANIMAL'S HUGE CARCASS PRODUCED LARD. THIS POLAND CHINA, NAMED *EXPANSION*, “WAS ONE OF THE GREATEST BREEDING BOARDS OF HIS DAY.” (HISTORY OF THE POLAND CHINA BREED OF SWINE)

“MEAT-TYPE” PIG

THIS LEAN YORKSHIRE COMPLETED HIS TEST AT THE NORTHEAST IOWA SWINE IMPROVEMENT ASSOCIATION STATION IN 1989. HE PROVIDES A REPRESENTATIVE EXAMPLE OF THE NEW, “MEAT-TYPE” PIG. (PHOTOGRAPH COURTESY NEISIA)

PORK PRIMER/*continued*

COOKBOOKS ARE BAROMETERS OF THE NATION'S DIET, AND THE RECIPIES IN THIS BOOKLET POINT TO SOME OF ITS CHANGES. "ROAST PIG"

AND "PORK CHOPS" DATE FROM THE VICTORIAN ERA. BOTH ARE HIGHLY FAT-LADEN. "CITY CHICKEN" CALLS ATTENTION TO THE CHANGING MARKET CONDITIONS IN THE 1930S. THE RECIPE ON PAGE 10 SHOWS SOME CURRENT INTERESTS.

AT THE MEAT COUNTER

ALTHOUGH THEIR MESSAGES HAVE CHANGED, RETAILERS STILL PROVIDE AN IMPORTANT LINK IN THE FOOD INDUSTRY BY PROMOTING NEW PRODUCTS AND IDEAS FOR MEALS AND GAUGING PUBLIC OPINION. (HINMAN AND HARRIS)

ROAST PIG

Mrs. F. L. Gillette featured this High Table recipe in her best-selling *White House Cook Book*, first published in 1887.

Take a young pig about six weeks old, wash it thoroughly inside and outside, and in another water put a teaspoonful of baking soda, and rinse out the inside again; wipe it dry with a fresh towel, salt the inside and stuff it with the prepared dressing; making it full and plump, giving it its original size and shape. Sew it up, place it in a kneeling posture in the dripping-pan, tying the legs in proper position. Pour a little hot salted water into the dripping-pan, baste with butter and water a few times as the pig warms afterwards with gravy from the dripping-pan. When it begins to smoke all over rub it often with a rag dipped in melted butter. This will keep the skin from cracking and it still will be crisp. It will take from two to three hours to roast. Make the gravy by skimming off most of the grease; stir into that remaining in the pan a good tablespoon of flour, turn in water to make it the right consistency, season with pepper and let all boil up once. Strain, and if you like wine in it, add half a glass; turn it into a gravy boat. Place the pig upon a large, hot platter, surrounded with parsley or celery tops; place a green wreath around the neck, and a spring of celery in its mouth. In carving, cut off its head first; split down the back, take off its hams and shoulders, and separate the ribs.

association, which maintains records of its genetic lines. The Berkshires are the oldest breed of swine in America. The crossbred pig is another category frequently encountered. Certain pork producers favor certain breeds over others and for different reasons. Each breed has its strong points. Pork producers tend to form loyalties, and "Ford-Chevy" discussions ensue.

During the Nineteenth and early Twentieth Centuries, American breeders made lavish efforts to improve swine characteristics. For example, the Poland China originated in the Miami Valley of Butler and Warren Counties, Ohio, after extensive efforts of selection. Some years later, one of these animals, a show and breeding boar named "Designer"—sold for \$30,000. "This was the one golden era of the Twentieth Century in the livestock business. Breeders were happy and rejoicing in the tremendous total of the sales, as well as the honor of doing big things." (*History of the Poland China Breed of Swine: 194*) These animals were bred in large part to produce prodigious amounts of lard. At the time, they were called the "Big Type," but subsequently become known as the "lard-type" hog.

The nation's consumption of pork continued to increase. The establishment of the National Swine

Show in Omaha, Nebraska, in 1916 stimulated new energy for the hog business, and World War I fueled further market demand. Prices skyrocketed for purebred breeding hogs, like "Designer" and "Expansion." Prices for slaughter animals also shot up. For example, the price for local hogs, which had been \$7.07 per hundred weight in 1916, rose to \$23.00 by July, 1919. (By comparison, recent hog markets saw depressed prices in 1998 at lows of \$8.00 per hundred weight and highs by November 1999 of \$32.00.) The strength of these markets could not survive the post-World War I economy.

As Europe returned to peace-time, the demand for American agricultural products declined. Although the nation's industrial economy continued to boom throughout the 1920s, the agricultural sector fell into depression.

What products did pigs provide? Throughout the Nineteenth and first half of the Twentieth Century, Americans used huge quantities of lard. Lard is rendered pork fat. It remained popular into the Twentieth Century as an efficient cooking agent and flavor enhancement. "Larding" was a widely-used cooking technique to render meats more palatable. Strips of salt pork or bacon were inserted in gashes made in the surface of meat or fish before roasting or baking. The fat

PORK CHOPS

This easy recipe appeared in *The Home Guide; or A Book by 500 Ladies*, as published for the "Chicago Daily Tribune" in 1880.

Remove the skin, trim and dip in beaten egg, then in cracker-crumbs seasoned with salt, pepper, onion and sage. Fry in hot lard 20 minutes, turning often.

from the cooking lard enhanced the flavor of the meat, particularly tougher cuts. By the mid-Nineteenth Century, packers had realized that in its refined form, lard had many other practical uses. It was sold as stearine for lighting purposes and to make candles and soap. In the 1850s, it is said that about 40 percent of a hog's useable body was converted into lard. (Walsh:121) During World War I and II, the demand for lard boomed because it provided an essential ingredient of nitroglycerin, used in explosives.

Of course, the biggest percentage of the hog's body was processed for human consumption. American consumers enjoyed foods prepared in ways now known to contain high levels of fat and cholesterol. For example, many recipes, like one from the 1880 "Chicago Daily Tribune," called for pan-frying in lard. Some, like Mrs. Gillette's recipe for roast pig—a showpiece entree for heavy Victorian appetites—cause one to blanch.

During the Great Depression, food became scarce for many Americans both in town and

country. The consumption of pork, which had exceeded that of beef throughout most of the Twentieth Century to that time, declined in the United States and has never regained its former stature. In some parts of the county, the cost of pork fell below that of chicken. A popular Depression recipe, "City Chicken," was prepared with pork used as an extender with either chicken or veal. One Iowan later recalled that:



"Pork was about two cents a pound on the hoof. The only places you could sell were Bushnell or Chicago. It would cost you about \$5 to ship a hog to either of those places and you would only get about \$4 for the hog. The government tried to get the farmers to kill baby pigs as soon as they were born as they just weren't worth enough to raise." (Bill Wenke, Van Buren County, Iowa)

Most farmers continued to raise pork for their families, if not for market, and some concocted ingenious methods. Bill Wenke's father fished in the Mississippi River and fed his hogs this high protein food.

World War II required the utmost in agricultural production to keep American armies marching, and

this, along with industrial production of war material, brought the nation out of the Depression. GIs consumed millions of cans of pork products as "C" and "K" rations and as "Spam." The demand for these products, as well as for lard for explosives, necessitated quantity production.

Following World War II, the consumption of pork products waned again. One animal scientist concluded in 1968 that:

"With the exception of the drought years of 1935-36, the 1966 per capital consumption of pork was the lowest in 88 years, in spite of the fact that the per capital consumption of all meats (at 170 lbs.) was the second highest in our nation's history! It is clear that Americans are eating more meat but less pork." (Twedt:3)

Following the war, the nation's consumption of lard also declined, replaced increasingly by vegetable oils. Cookbooks today rarely mention lard except to define it and occasionally extol its merit as a shortening for light and flaky piecrusts.

CITY CHICKEN

A favorite recipe from Depression days when chicken was more expensive than pork. (Serves four)

1 pound (450 g) pork trimmed, in 1-inch cubes	Salt
1 pound (450 g) lean veal or skinned, boned chicken in 1-inch cubes	Freshly ground pepper
1 egg, slightly beaten	4 tablespoons butter
1-1/2 cups (3-1/2 dL) freshly made bread crumbs	2 tablespoons oil
	1 cup (1/4 L) chicken broth
	1 tablespoon cornstarch

Place alternating cubes of pork and veal or chicken on eight wooden skewers. Push the meat cubes together snugly. Mix the egg with 1 tablespoon water and dip the skewered meat in it. Roll meat in the crumbs and sprinkle with salt and pepper. Heat the butter and oil in a large skillet and brown the meat lightly. Add 1/2 cup of the chicken broth, cover, and simmer for 20-30 minutes. Dissolve the cornstarch in the remaining 1/2 cup of chicken broth and add it to the pan juices, cooking and stirring until clear and thickened. Serve the skewers with sauce poured over them.

The Fannie Farmer Cookbook, Twelfth Edition.
Alfred A. Knopf, a Division of Random House, Inc.

LEAN PORK

WEIGHTING

MEN WEIGHING A PIG AT THE AMES TESTING STATION IN 1962. A PIG WAS WEIGHED ON MOBILE SCALES AND THE DATA RECORDED ON A TEST CARD. EACH PIG WAS INDIVIDUALLY WEIGHED FIVE TIMES DURING ITS THREE MONTH TEST. THE ANIMAL'S WEIGHTS WERE THEN COMPARED WITH THE QUANTITY OF FEED IT HAD CONSUMED. THIS DATA ALONG WITH OTHER TEST RESULTS DETERMINED THE ANIMAL'S DESIRABILITY FOR BREEDING. (IOWA'S SWINE TESTING STATIONS...AND THE PORK PRODUCER)

AFTER YEARS OF DECLINE, PORK HAS ONCE AGAIN RETURNED TO POPULARITY ON THE AMERICAN TABLE. LEANER PORK PRODUCTS, NATIONAL EDUCATIONAL CAMPAIGNS TOUTING PORK AS A HEALTHY FOOD, AND THE GROWING INTEREST AMONG AMERICANS IN KNOWING WHAT THEY EAT PROMPTED THIS TURN-AROUND.

The metabolism of the pig's body possesses remarkable genetic variability. We have seen how the lard type hog was bred in the Nineteenth Century to increase its production of that commodity. In our own era, protein has become the animal's star quality. Speaking in the early 1970s, Lanoy N. Hazel, Distinguished Professor of Animal Science at Iowa State University, presented these astonishing statistics about the pig's genetic potential to convert less food into more protein:

"Figuring that a 200 pound pig produces a 140 pound carcass, and that chemical content was 50 percent fat ten years ago, 35 percent fat now, and 25 percent fat in another ten years, and that feed requirements over those periods have decreased from 300 to 275 to 250 [pounds], we get the following figures for feed costs per pound of feed for producing a pound of protein... 6.0 lbs. feed 10

years ago, 4.2 lbs. feed now, 3.3 lbs. feed in 10 years." (Hazel Papers, Parks Library, Iowa State University)

Interest in the meat-type hog is not new. In 1927, a group of commercial buyers and leading pork producers met to discuss ways to promote leaner pork. This group recognized a decline of consumer demand for the lardy hog and sought to stem this falling demand by setting standards for what is now known as the meat-type hog. (*The Pork Story*:22) The same year, this group organized a National Barrow Show in conjunction with the established National Swine Show, a showcase for market hogs. The show sought to encourage

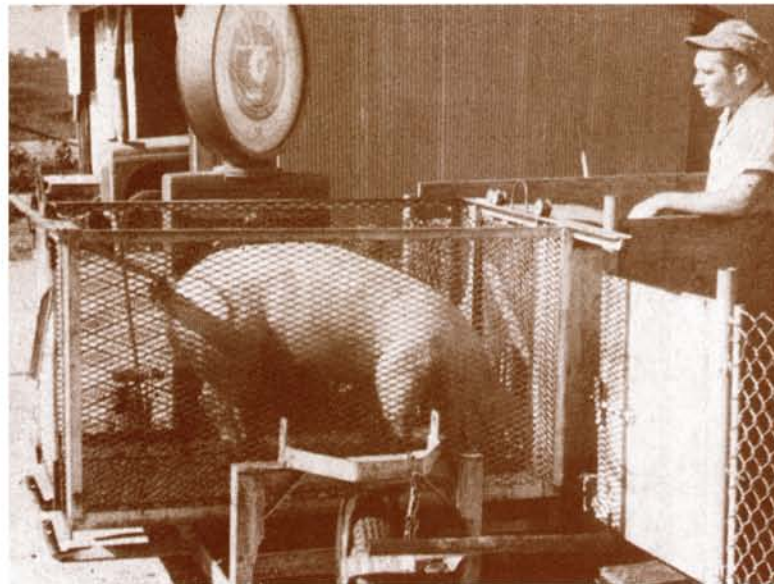
the production of the meat-type animal.

The Great Depression soon thwarted these reform efforts. As we have seen, the market for pork declined during the 1930s, and World War II again stimulated production of the lardy-type animal.

Then, in the 1950s and 1960s, scientific research at the nation's land grant universities with the support of the commercial meat industry revived interest in the meat-type hog. The establishment of swine testing stations was a major step. In 1956, Iowa State University opened the Iowa Swine Testing Station at Ames in order to obtain objective data about swine genetics. According to its stated goals:

"Gain, efficiency, meatiness—these are the immediate goals of the central testing station program for Iowa swine. The ultimate goals are higher market value and sustained consumer demand for pork." (*Iowa's Swine Testing Stations... and the Pork Producer*:3)

Five other testing stations in Iowa followed: Ottumwa in 1958 sponsored by the Southeast Iowa Swine Testing Association; New Hampton in 1960 sponsored by Midland Cooperatives of Minneapolis; and stations at Eagle Grove, Ida Grove, and Lisbon also in the 1960s



sponsored by the Consumers Cooperative Association (now Farmland Industries, Inc.) of Kansas City, Missouri. The Ames station tested the most pigs. All the stations used the same feed rations and test procedures. For the sake of efficiency, all of the testing stations focused their attention on boars, based on the premise that male hogs could breed larger numbers of offspring than sows.

Other efforts also promoted the meat-type hog. In 1968, Iowa State University hosted an international conference focusing on pork quality characteristics, with representatives from the restaurant, meat packing, and scientific communities. Other animal scientists, like Lanoy Hazel, participated in research projects. Extension services conducted educational programs.

The goals of the testing stations served the interests of the purebred and the commercial hog producer as well as the meat packing industry. The willingness of packers to support the testing stations is a case in point. Meat packers have always faced the question of how to cut their meat. What products appeal to consumers' ever changing tastes? As the demand for lard and lard products declined, that part of the animal became wastage, and a meatier hog was in the packers' interest.

The testing stations quickly produced results. By 1962, Iowa's stations reported that "some definite changes have been made in breeders' tested herds since 1956. These changes are improvements in

gain, efficiency and meatiness." Specifically, the stations reported that backfat on boars and barrows had decreased by 0.4 and 0.25 inches respectively; that the average loin eye area of barrows had increased almost 1 square inch; and the average lean cuts of barrows had increased about 7 percent, an increase of about ten pounds of meat in a 200-pound pig. (*Ibid*:19) Stations reporting these statistics included Ames, Eagle Grove, Ida Grove, and New Hampton.

But progress toward leaner pork was handicapped by the lack of a simple method to evaluate leanness. A breakthrough occurred in the 1950s, when animal scientists working at Iowa State devised a new tool—the backfat probe—to solve this problem. After snaring the pig and disinfecting the probe site, a scalpel incision was made along the pig's back and a six inch metal probe rule pressed through its backfat until reaching the pig's muscle. These backfat measurements indicated the



animal's over-all meatiness. Now farmers possessed a quick and easy method to evaluate the leanness of their live animals. "In the years that followed it was not unusual to see a backfat probe protruding from the overall top pocket of a farmer." (*Muhm*:119) This simple, painless, and inexpensive technique aided breeders to select those animals possessing the genetic traits most desirable for the quick and economical production of leaner pork.

BACKFAT TESTING

PROBING A PIG'S BACKFAT AT THE AMES TESTING STATION IN 1962. AS THE PIG'S SNOUT IS HELD IN A SNARE, A PROBE IS PRESSED THROUGH AN INCISION IN HIS BACK UNTIL IT REACHES MUSCLE. THIS PAINLESS TEST ENABLED PORK PRODUCERS TO MEASURE AN ANIMAL'S MEATINESS WITHOUT SLAUGHTER. THIS AND OTHER INFORMATION WAS CAREFULLY RECORDED AND USED TO SELECT PIGS FOR BREEDING, WHOSE GENETICS POSSESSED THE CHARACTERISTICS OF "GAIN, EFFICIENCY, AND MEATINESS." (IOWA'S SWINE TESTING STATIONS...AND THE PORK PRODUCER)

NORTHEAST IOWA SWINE TESTING STATION

CHICKASAW COUNTY SHOW AND SALES BARN

THIS FACILITY WAS BUILT IN 1959-1960 BY THE CHICKASAW COUNTY PORK PRODUCERS FOR THE NORTHEAST IOWA SWINE TESTING STATION. IT HOUSES HOLDING PENS AND A SHOW AND SALES RING. MILLIONS OF DOLLARS IN SALES FOR THOUSANDS OF PIGS TESTED AT THE STATION HAVE TAKEN PLACE HERE. THE BUILDING WILL BE DEMOLISHED TO IMPROVE U.S. HIGHWAY 63.

NORTHEAST IOWA SWINE TESTING STATION

LOOKING NORTHEAST, THE SITE INCLUDES (CLOCKWISE FROM LOWER LEFT) THE SHOW AND SALES BARN, THREE TEST BARNs, AN OFFICE, A MAINTENANCE BUILDING, AND A WASTE LAGOON. HIGHWAY 63 RUNS NORTH AND SOUTH ACROSS THE TOP OF THE PICTURE. (PHOTOGRAPH COURTESY NORTHEAST IOWA SWINE IMPROVEMENT ASSOCIATION)

THE NORTHEAST IOWA SWINE TESTING STATION OPENED IN 1960 NEAR NEW HAMPTON, IOWA. OVER THE NEXT QUARTER CENTURY DURING A RAPIDLY CHANGING ERA FOR SWINE PRODUCTION, THIS STATION TESTED THOUSANDS OF BOARS TO IDENTIFY THOSE WHOSE GENETICS PROMOTED THE DESIRED QUALITIES OF "GAIN EFFICIENCY MEATINESS." THESE ANIMALS SUBSEQUENTLY SIRED MILLIONS OF PIGS.

This station is located one mile south of New Hampton and one quarter mile west of Iowa Highway 63 on a gravel road. It consists of two adjacent areas, historically owned and operated under separate managements, yet providing cooperative services to each other. Midland Cooperatives of Minneapolis originally operated the testing station on a non-profit basis in conjunction with the Northeast Iowa Swine Testing Association. Midland began in 1959 the construction of two 20' x 156' test barns and an office



building on this five acre tract of land. The station opened for operation in 1960. (In 1963 Midland added a maintenance barn and another test barn on the site.)

As a cooperative effort in 1960, the Chickasaw County Swine Producers Association, an organization of pork producers in the New Hampton area, built a Show and Sales Barn to the west of this station on land leased from a local farmer. The purpose of the barn was to provide a venue for producers to sell animals tested at the station, as well as for other agricultural events. The sales barn was a pole frame, metal warehouse-type building with about 3,400 square feet. Most of the interior was given over to a show ring and spectator seating. The southern portion of the barn housed the pigs before and after the sales.

The testing methods at the New Hampton station provide a good example of how Iowa's testing stations operated. The pigs admitted for testing were about 60 days old and weighed about 50 pounds when they arrived at the station. Only one producer's animals were placed in the same pen



or pens. The pigs had several days of acclimation before going on test. The animals then received a ration up to 60 pounds of feed over a period of 35 days. At that time, they were weighed individually with their weight recorded. The pigs then went back on test until they reached about 200 pounds. The faster growers were weighed off before 90 days, and the slower ones took about 100 days. At that time, each pig was probed in six different places for backfat.

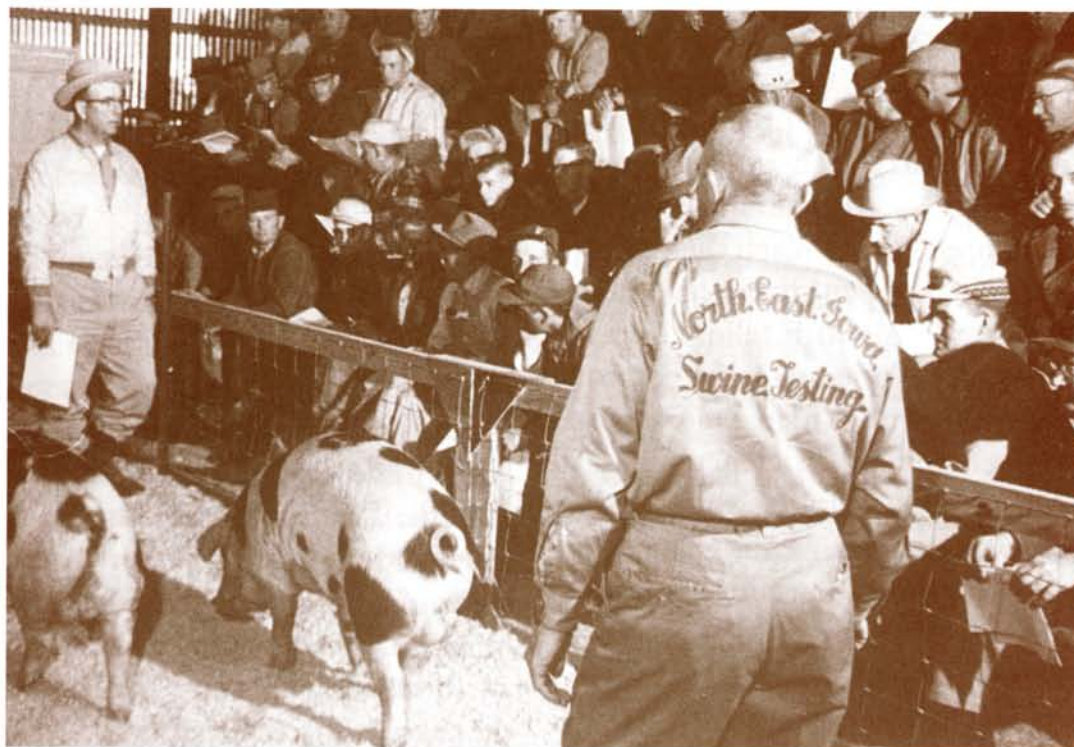
Throughout the testing, records were made of feed. Every time the feeder box was filled, it was noted. At the end of the test, feed conversion statistics were calculated to measure each animal's efficiency. All the pens of all the producers' animals were treated identically. The swine were fed identical rations and cared for in the same manner. Everything was identical except the individual

genetics of each pig. While on test, which was about 90 days, the animals were evaluated for their average daily gain, their backfat, and their feed conversion.

Two test cycles were held each year. The New Hampton station could accommodate about 350 animals during each cycle.

Pigs had to meet certain requirements before they were accepted for testing. David Huinker, long-time manager of the Ames testing station, recalled that these standards changed over the years. "As the pigs got better, the standards were toughened." By the late 1960s or early 1970s, for example, pigs were required to reach a weight of 220-230 pounds. A coordinating board of representatives from each of Iowa's testing stations met twice yearly to discuss standards and other matters. If, for example, the stations had too many boars qualifying or making test, it was time to upgrade the standards. The board also coordinated the sale dates at the various stations to avoid conflicts.

Upon the completion of their testing, those boars that had reached at least minimum standards were sold at public auction to breeders and commercial producers. The producer paid the station its costs pro-rated according to the number of pens the producer's animals had occupied. Each producer paid the same amount of money to test his animals regardless of their performance.



These tests contributed to education, competition, and increased profit among producers. Producers could obtain objective data about their animals, identify those with the preferred genetic characteristics, compare their animals with those owned by other producers, and improve their herds by breeding selected animals. The test results were public information with no secrets. The testing stations also conducted shows and sales, so producers could mar-

ket or acquire animals, as well as learn about current market needs from packinghouse representatives, who attended the sales.

The New Hampton testing station remained in continuous operation for 28 years. Keith Olson, a vocational agriculture instructor, served as its original manager from 1960 to 1965, succeeded by Harley Trewin, and, in turn by his son Robert Trewin, the station's manager until it ceased operations in December 1988.

AUCTION RING AT THE NEW HAMPTON SHOW AND SALES BARN

BIDDERS AND SELLERS IN ACTION AT THE NORTHEAST IOWA SWINE TESTING STATION NEAR NEW HAMPTON. USUALLY TWO SALES WERE HELD EACH YEAR AT THIS SHOW AND SALES BARN AFTER PIGS COMPLETED THEIR SPRING OR FALL TESTS AT THE STATION. (IOWA PORK & IOWA PEOPLE, P. 173)

"THE OTHER WHITE MEAT"

DURING THE 1970S AND 1980S, PORK PRODUCERS HAD COME TO RECOGNIZE THAT IF PORK WERE TO HOLD ITS OWN ON THE NATION'S TABLES, A NATIONAL EFFORT WAS NECESSARY TO CHANGE THE EATING HABITS OF AVERAGE AMERICANS.

"Although by 1980 the fat content of a hog carcass had been reduced by 50 percent this fact had not changed the unhealthy perception most consumers still held," according to the National Pork Producers Council. (*The Pork Story*:180)

Taking a cue from the turkey industry—which had achieved tremendous results from national promotions of turkey as a healthful food—pork producers and the pork industry launched nation-wide campaigns to promote pork. Public relations agents for the pork industry and the nation's magazines, newspapers, radio, and television media contributed in the 1980s to a growing consciousness of pork as a healthful and tasty food.

The costs of such promotions were high. A program to raise some money had been established in the late 1960s with producers assessed a voluntary fee of five cents for each hog produced. These contributions were like the "Chickadee Check-Off" on the State of Iowa's income tax forms. Although they achieved measurable success, greater efforts were needed. After considerable debate and discussion within the pork industry and the federal govern-

ment, a mandatory check-off fee was established by federal legislation in 1986. By the 1990s, the National Pork Board was administering some \$40 million each year from the check-off program to improve the production and marketing of pork. Part of this money sponsored the National Pork Producers Council and its advertising campaigns. They included "America, you're leaning on pork" in 1983 and the big star, "Pork: The Other White Meat," in 1989-90. These campaigns culminated in 1995, 1996, and 1997 with commercials televised during professional football's Super Bowl, the nation's most expensive advertising spot. These commercials reached an estimated 44 million people.

The campaigns began to pay off. Magazines like "Better Homes and Gardens" and newspaper syndicates featured articles and recipes about leaner pork. Cookbooks like the *American Heart Association's Quick & Easy Cookbook* began to tout the benefits of pork as a healthful food.

During this same period, other major changes also occurred in the nation's food industry. Many women entered America's work place, the time available to prepare family meals declined, and convenience shot to the forefront in many of the nation's kitchens. Consumers demanded streamlined techniques for cooking. For example, in 1991, the *Better Homes and Gardens New Cook Book* "talked to people just like you to find out what you want and need in your favorite cookbook. Not

CRANBERRY-SAUCE PORK CHOPS

Start to finish: 25 minutes

Fast

Low-Fat

This sauce is a delicious way to use up some of the cranberry sauce left over from the holidays.

6 pork loin rib chops, cut $\frac{3}{4}$ inch thick

Pepper

1 tablespoon margarine or butter

$\frac{1}{2}$ cup apple cider or apple juice

$\frac{1}{2}$ of a 16-ounce can (1 cup) whole cranberry sauce

2 tablespoons sliced green onion (1)

2 teaspoons cornstarch

1 teaspoon brown sugar

$\frac{1}{2}$ teaspoon finely shredded orange peel

1. Trim fat from meat. Sprinkle chops lightly with pepper. In a 12-inch skillet cook chops in hot margarine or butter over medium-high heat about 4 minutes or till brown, turning once. Drain off fat.

2. Pour apple cider or juice over chops. Bring to boiling. Reduce heat. Simmer, covered, for 5 to 6 minutes or till no pink remains in pork chops and juices run clear. Transfer pork chops to a platter, reserving $\frac{1}{2}$ cup juices in skillet. Keep warm.

3. For sauce, stir together cranberry sauce, green onion, cornstarch, brown sugar, and orange peel. Stir into reserved juices in skillet. Cook and stir over medium heat till thickened and bubbly. Cook and stir for 2 minutes more. To serve, spoon sauce atop chops. Makes 6 servings.

Nutrition Facts per serving: 217 cal., 9 g total fat (3 g sat. fat), 48 mg chol., 71 mg sodium, 19 g carbo., 0 g fiber, 15 g pro.

Daily Values: 2% vit. A, 4% vit. C, 0% calcium, 5% iron.

Excerpted from the *Better Homes and Gardens New Cook Book* 11th edition, this recipe is copyrighted material of Meredith Corporation, used with their permission. All rights reserved.

MARKET UPDATE...

surprisingly, time, convenience, and health were priorities for many of you." To achieve these goals, this new cookbook presented recipes for broiling, grilling, and for the crockpot, and downplayed roasting and braising.

The nation's food industry also responded to demands for convenience. Packers introduced new cuts of pork designed for quick-to-fix meals. Ground pork resembling minute steaks and retailed as "pork cutlet patties" appeared in the meat case. Individually-packaged ham slices for quick cooking became widely available. During the 1960s, ethnic foods—like Chinese and Italian—had become popular in the United States. This new interest in oriental cuisine boosted pork's reputation here at home, and packers introduced pork strips to stir-fry. (Pork remains today, as always, the most popular meat in China.) In the 1980s, country style ribs emerged as a new pork cut for barbecue, and the Iowa Chop made its appearance to satisfy hearty appetites. The waning popularity of the traditional ham was another reason to cut pork in new ways. In recent times, this staple of the Sunday dinner and holiday table (and pork's highest value-added cut) has declined. Writing in the 1960s, the president of the American Meat Institute, Herrell DeGraff, noted that "the ham, like the turkey, is an inconvenient unit of purchase for most families." He also noted that "increasingly the ham, again like the turkey, is being fabricated into various forms, shapes, and sizes that contribute much

to better merchandising." (Topel:xiv) Now that one-person households make up one-quarter of the nation's population, the demand for big cuts of meat, like the traditional ham, is likely to continue its decline.

Throughout these changing times, the pork industry has faced challenges. For several thousand years, certain religious prescriptions have eschewed pork as a food, and the "safety factor" engaged much attention. Although Trichinosis is infrequently encountered in America today, people still tend to overcook pork—the national propensity having sided with those arbiters of American cooking, like Mrs. F. L. Gillette, who admonished in 1887 that "Pork is a white and close meat, and it is almost impossible to over-roast pork or cook it too much; when underdone it is exceedingly unwholesome." (*The White House Cookbook*:6) Times change. The 1979 edition of *The Fannie Farmer Cookbook* had this to say about pork: "Unfortunately, it is too often served tasteless and dry, overcooked in an effort to make it safe to eat."

Over the last twenty years, leaner pork has improved the national diet by providing an economical source of protein. Scientific research continues to corroborate the value of pork as a nutritious food. National health organizations lend further authority by recommending pork and publishing appetizing recipes for its preparation. As a result, pork has returned to popularity on American tables once again.

BIG CHANGES OCCURRED IN THE PORK INDUSTRY AND AT THE NEW HAMPTON TESTING STATION IN THE 1980S.

Pork production grew more specialized. Big breeding companies, like PIC and DeKalb, now produced, by the thousands, boars with desirable genetics. They supplied these animals to big pork producers in different parts of the country to breed with their herds. The big scale of these operations resulted in cost efficiency, and, coupled with the uniformity of their product for the packing houses, put the small pork producer at risk. The utility of testing boars for the small producer declined. After a succession of ownerships, the New Hampton station, which had served small and mid-sized farmers, ceased operations in 1988.

But soon afterwards, a consortium of local businessmen and farmers, purebred swine breeders, and the Iowa Pork Producers Association purchased the New Hampton Station and formed the Northeast Iowa Swine Improvement Association (NEISIA). The station's management was transferred to the Hormel Foods Corporation of Austin, Minnesota. The station became the site for the National Barrow Show Progeny Test. Since it re-opened in 1989, the station identifies boars with desirable genetics by testing a broad sampling of their progeny using the standards of the National Swine Improvement Federation. These superior meat sires are then featured at the National Barrow Show, held annually under Hormel's sponsorship in Austin. Tim Klaustermeier became the manager of the New Hampton station, and Greg D. Miller, succeeded him in 1991.

CONCLUSION

LOOKING BACK OVER THE VANTAGE POINT OF FOUR DECADES, WE CAN SEE HOW ANIMAL SCIENTISTS, PORK PRODUCERS, AND THE PORK INDUSTRY COOPERATED TO IMPROVE THE UTILITY OF ONE OF MAN'S MOST BENEFICIAL DOMESTICATED ANIMALS.

During the preparation of this publication, many voiced surprise at the thought that a facility built in 1960 could possess historical significance. Yet as we have seen, the Northeast Iowa Swine Testing Station at New Hampton, Iowa, and its brother stations across Iowa and nation, solidified the meat-type hog as the chief object for pork production. By providing objective test data, these stations aided pork producers and the pork industry to identify those animals, whose genetics promoted the desirable attributes of gain, efficiency, and meatiness. Americans can now enjoy the benefits of this work by selecting tasty, juicy, and nutritious cuts of pork for quick and economical meals from coast to coast and border to border.

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GLOSSARY

Pork producers use a variety of words to define their animals and products. This rich vocabulary has evolved over the centuries as mankind has carefully bred these invaluable animals to improve their utility.

backfat	the fat above a pig's spine, whose depth, when measured with a probe on a live animal, provides a good indication of its overall meatiness, lesser backfat indicating a meatier animal.
barrow	a castrated pig.
boar	a male pig or hog, uncastrated.
gilt	a young female pig before motherhood.
hog	a pig; especially, a castrated boar or full-grown pig raised for its meat.
pig	a generic term for swine, especially for a young one.
pork	the flesh of a pig or hog.
porker	a hog, especially a young one, fattened for meat.
pork bellies	a commodity trading term used to describe the sides of the hog carcass, usually cut for bacon.
shoat	a young pig, especially when able to feed alone: also spelled "shote."
sow	an adult female pig, usually after her first litter.
swine	a pig or hog, usually used collectively.

Sources: *Webster's New World Dictionary* and others.

FURTHER READING

Readers interested in the history of pork, its production and products, and Iowa's swine testing stations can find more information about these topics in the following sources.

- Hinman, Robert B., and Robert B. Harris; *The Story of Meat*; Swift & Company; Chicago; 1947.
- Ingles, Marlin R.; *A Phase I Historic Architectural Survey of Primary Roads Project-NHS-63-8(17)—19-19, a.k.a. PIN 94-19010-1, Chickasaw County, Iowa*; PCR Vol. 18, No. 2; Highway Archaeology Program, University of Iowa; Iowa City, Iowa. Report on file at State Historical Society of Iowa.
- Iowa's Swine Testing Stations... and the Pork Producer*; Cooperative Extension Service Pamphlet 291; Iowa State University; Ames, Iowa; 1962.
- Muhm, Don; editor and chief writer; *Iowa Pork & People, A History of Iowa's Pork Producers*; Iowa Pork Foundation; Des Moines, Iowa; 1995.
- The Pork Story*; Rolland "Pig" Paul, J. Marvin Garner, and Orville K. Sweet, co-authors; National Pork Producers Council; Des Moines, Iowa; 1991.
- Twedt, Dik; "General Acceptance of Pork," in *The Pork Industry: Problems and Progress*; David G. Topel, editor; Iowa State University Press; Ames, Iowa; 1968.
- Walsh, Margaret; *The Rise of the Midwestern Packing Industry*; Lexington, Kentucky; The University Press of Kentucky; 1982.

Many people have interesting stories to tell about these topics and would make excellent informants for oral history.

CONVENIENCE, HEALTH-
CONSCIOUSNESS, AND
INFORMALITY HAVE BECOME
HALLMARKS OF CONTEMPO-
RARY AMERICAN MEALS.
(NATIONAL PORK PRODUCERS
COUNCIL)

48 Must-Try Menus

This sandwich is a real family favorite that is served at our many, many family get-togethers. We always serve these sandwiches with potato salad. Make extra sauce to serve on the side; this sauce is also good with ribs and chops.

Fred Race, Strongsville, Ohio

Lazy Man's Barbecue Pork Sandwiches

- 4-5 pound boneless pork butt (shoulder)
- 1 14 1/2-oz. can beef broth
- 1/3 cup hot pepper sauce
- 1/3 cup Worcestershire sauce

Sauce:

- 1/2 cup catsup
- 1/2 cup molasses
- 1/4 cup Worcestershire sauce
- 1/4 cup yellow mustard
- 2 tablespoons hot pepper sauce

10-12 sandwich buns

This tangy BBQ sauce will become a favorite! →

Place pork butt in bottom of large slow-cooker. Combine broth, hot pepper sauce and Worcestershire sauce, and pour over pork. Cover and cook on hot setting for 5 hours (or 8-10 hours on low setting) until pork is very tender. Meanwhile, for sauce, combine all ingredients in large saucepan; set aside. Place pork on cutting board; reserve 1/2 cup cooking liquid. Coarsely chop pork; combine with reserved cooking liquid and sauce in saucepan; heat over medium heat until warm. Spoon pork onto sandwich buns to serve. Serves 10-12.

Approximate nutrient information per serving: 530 calories, 45 grams protein, 16 grams fat, 6 grams saturated fat, 120 milligrams cholesterol, 870 milligrams sodium, 51 grams carbohydrate





The Other
White Meat.