

*Early settlers had but few cattle, and used them for both work and milk. Beef-making got its start, and gained in importance. The trend in Iowa beef production has been to finish cattle for market at lighter weights and at younger ages.*

## 10. Iowans Feed Beef Cattle for Market

P. S. SHEARER, *Animal Husbandry*

CATTLE GRAZING, TODAY ASSOCIATED WITH THE ranges of the West, has been a sign of the pioneer throughout the history of the United States. Cowboys once herded dogies in Virginia. As settlers moved across the continent, the cowboy and his cattle moved ahead of them. When Iowa became a state in 1846, cattle grazing was just beginning in its southeast corner. Fifty years later the enterprise had passed through the state to northwest Iowa, across the Missouri, and had disappeared into the West.

Iowa's first cattle were brought into the state by settlers from Illinois, Wisconsin, and Missouri. The census of 1840 shows that Iowa territory had "cattle other than milk cows" numbering just over thirty-eight thousand head. Nearly all of them were located in an area two or three counties wide along the Mississippi River from the Missouri border north to what is now Clayton County, with the heaviest concentration in the three southeastern counties, Des Moines, Lee, and Van Buren. The year 1850 found the number of cattle nearly doubled with most of them located south and east of a line running from Mills County to Winneshiek. The westward advance was more rapid in southern Iowa because of the Mormons who crossed the state from Nauvoo, Illinois, to Council Bluffs in 1846, and also because of the settlers coming in from Missouri.

Not much information is available concerning the characteristics of Iowa's early cattle. It is certain that there were not at that time highly specialized types of beef and dairy such as we know them now. We know that the stock from which they came was made up of cattle from numerous European countries, brought in by the early settlers

all along the Atlantic seaboard. By 1840 improved Shorthorns from England had been used enough in the states farther east, notably Ohio, Kentucky, and Illinois, to have left their impression on the cattle there. Devons and a few Herefords also had been introduced west of the Allegheny Mountains to improve the so-called native stock. Cattle from Missouri seem to have descended from stock brought westward from the Carolinas through Tennessee and southern Illinois. These southern cattle are described, as they first entered Iowa, as inferior in size and beef qualities when compared with the stock which came in from states directly east. A combining of these two somewhat different stocks provided the foundation for Iowa's beef-raising industry.

The earliest settlers had but few cattle and generally used them for both work and milk. As numbers increased beyond those for such needs, beef-making increased in importance. This led in many cases to the use of improved stock. A statement by a Muscatine County cattleman published in the annual report of the State Agricultural Society for 1858 indicates the mixed characteristics and poor quality of the cattle stock twelve years after Iowa became a state:

The practice of suffering male animals of our native breeds, of all colors, shapes and sizes, many of them the meanest that could be raised, to run at large is, to say the least, reprehensible.

The annual report of the secretary ten years later indicates that, while some improvement had no doubt been made, much remained to be done:

Yet the fact is apparent that raisers of cattle are too easily satisfied with present attainments. The mass of farmers are content to follow the old routine; and in most cases the process of rearing cattle is excessively primitive. Many of them eke out their living on prairie pasture and prairie hay. But all the testimony is in favor of careful crossing, rearing, feeding, and a knowledge of the breeds best fitted for the butcher, the yoke, or the dairy.

Beef cattle numbers increased steadily and rapidly after 1850, reaching over three million head by 1890. This represented an increase in density from a little over one head per square mile of farm land to approximately sixty-one head per square mile. During this period settlement progressed to the west and north, continually opening up large areas of good grass land. Drove of cattle were pushed out ahead of the plow. Cultivation and cropping of more land in the older areas reduced the grazing available there. Cattle numbers were increasing beyond the needs of the settlers for milk and work. Sending out herds along the fringe of the more thickly settled part of the

state became the common practice. These herds were usually made up of cattle belonging to several owners and were in charge of hired herders. Some owners had enough cattle to make up herds of their own, but this was the exception.

The transition from grazing to farming along this western fringe was accompanied by much serious controversy over fencing and the right to free grazing. In 1870 the legislature enacted a law which made the owner of cattle liable for damages done by his cattle to cultivated crops. The enforcement of this law was left to individual counties and later to townships as a matter of local option. In most parts of the state cattle herding did not persist long in any given area because settlement and cultivation constantly were catching up. It prevailed longer and was practiced on a larger scale in northwest Iowa than in any other section. From 1850 until past 1890 cattle grazing somewhat comparable to that on the range reached its greatest development in Iowa. After 1890 cattle grazing moved on west into Nebraska and South Dakota. Iowa, except for isolated spots, had become a state of diversified farms.

Commercial beef production stabilized on the basis of two distinct types of enterprise. One was the maintenance of cow herds with the production of calves sold as feeders or fed out for beef by the grower. The cow-herd enterprise is adapted to the use of low-grade roughage and pasture land that is too rough and erosive for cultivation. The second enterprise, cattle feeding, involves the purchase of thin cattle and fattening them for the slaughter market. As compared with the cow-herd enterprise, cattle feeding requires more grain and less roughage but roughage of better quality. Some farms are adapted to combining both enterprises and both are found in all parts of the state. Calf-raising predominates, however, where there is more rough pasture land, and cattle feeding predominates where more grain is produced. Total numbers have fluctuated. On January 1, 1946, Iowa had 3.6 million "cattle other than milk cows," a figure comparable to the 3.3 million reported in 1890.

#### INTRODUCTION OF PUREBREDS

When the first purebred beef cattle were imported into Iowa is not a matter of clear and indisputable record, but it seems quite certain that the first of the recognized beef breeds to enter was the Shorthorn, or Durham, as it was often called in those days. The 1857 report of the State Agricultural Society says: "In 1840 Charles A. Hatfield brought a Shorthorn bull to this country which was a very

superior animal. He was from an imported cow and sired in England." Sanders' *History of Shornhorn Cattle* states, "There is a record of a purebred bull having been taken into Muscatine County by Charles A. Warfield in 1841." While there is some discrepancy in name and date, these statements probably refer to the same bull, the first purebred beef animal, on the basis of available records, to enter the state.

Timothy Day, a farmer of Van Buren County, is generally credited as the earliest Iowa breeder of purebred Shorthorns. His foundation animals were purchased in Kentucky and came to Iowa in 1850. Other early breeders of Shorthorns were H. G. Stuart, of Lee County, and Judge T. S. Wilson, of Dubuque. These three men exhibited their pedigreed cattle at the early state fairs and contributed in other ways to an appreciation of the value of Shorthorn blood.

The Civil War, which caused a rapid expansion in sheep raising in Iowa, temporarily retarded the spread of the Shorthorn. After the war, interest in sheep raising subsided, and improved Shorthorns experienced a boom which brought prices to excessively high levels but gave them a wide distribution throughout the state.

The Agricultural Society Yearbook for 1879 states that Shorthorn cattle were reported in seventy-nine counties and that only nine counties reported having only grades and natives. Iowa assumed leadership early in the production of Shorthorn cattle, and during recent years has been the leading state in numbers of purebred Shorthorns and in the number of breeders producing them. Both the beef and the milking types of the breed have been popular. Iowa also has played an important part in the development of the polled strain of Shorthorns.

Uncertainty also obscures the date of entry of the first Hereford cattle into Iowa. A class for Herefords was inserted in the State Fair prize list for 1856 after the opening of the fair, on the recommendation of the cattle committee. The herd shown in this class may not have been purebred, however, as grades were also exhibited at that time. In 1860 a herd of Herefords composed of one bull and four females was exhibited by George F. Devereaux in the herd class where any breed could compete. Here again it is not clear whether the cattle were purebreds or grades.

Sanders was unable to find any record of purebred Herefords brought into Iowa previous to an importation by John H. and Gilman S. Burleigh in 1869. This firm exhibited at the State Fair in 1871 and a Hereford classification appeared regularly thereafter. During the eighties, Iowa became an important center for Hereford breeding

cattle, a position which it has held to the present day. Iowa also played a leading part in development of the Polled Hereford.

Devons were brought into the state during the forties and were reported by twenty-nine counties in 1879. From what is known of their early type it seems probable that they contributed fully as much to the improvement of dairy qualities as to beef-making when crossed on native stock.

The Aberdeen Angus was the last of the beef breeds to make its appearance in Iowa. The State Fair first offered a class for polled Angus in 1881 but there were no entries. In 1882 Farwell Brothers, of Montezuma, exhibited eight cattle in the polled Angus class and in 1883 twenty-eight head were exhibited. Abner Graves, according to Sanders, was among the first to establish a breeding herd in the state. Numbers increased rapidly during the later eighties and Iowa soon led the nation in breeding Aberdeen Angus, as it still does.

The Secretary of the State Agricultural Society in 1857 expressed the following opinion concerning the status of the breeds introduced up to that time:

The different families or breeds of cattle are all represented in our state, and many of them are in such hands that they will have a fair trial of their adaptation to our soil and climate. In the matter of which is the best breed, every man will have his own opinion, and, as in older states, we may expect a war of words and opinions as to the comparative merits of the Shorthorns, Devons, and Herefords, that will not end for many years, if ever. They are all good, and, just in the proportion that the natives give place to them, or their crosses, in that proportion will the wealth of the state be increased.

The purebred census of 1885 gave the number of the various breeds in Iowa as: Shorthorns, 28,336; Herefords, 2,802; Black Polled, 394; and Devons, 192. There is abundant evidence that in the early years the rank and file of beef cattle raisers were slow to make use of these improved breeds. Systematic improvement by the use of well-bred sires was difficult and results of early attempts were discouraging when herds ran at large on unfenced land. As cropping increased and fencing became general this situation changed, and from 1885 on the use of improved sires increased rapidly.

#### FEEDING PRACTICES

Feeding methods have undergone a gradual evolution since Iowa became a state. The early cow herds were fed largely on prairie grass in the summer and prairie hay in the winter. As herds were pushed westward this method continued on the frontier as long as open prairie remained available. Back of the frontier, bluegrass

pasture began to replace prairie pasture as early as 1870. Timothy and clover, which had come into use as hay crops somewhat earlier, were followed by alfalfa. These hay crops largely replaced prairie hay as a source of winter roughage. Corn fodder and more recently corn silage have also been extensively used as winter feeds for breeding herds. With increasing competition from other kinds of livestock and from cattle grown on the range, commercial cow herds since 1900 have largely been kept to utilize crop residues, low-quality roughage, stalk fields and pasture. Feeding practices have changed accordingly.

#### CATTLE FATTENING

Previous to 1850 few cattle in Iowa were fattened for the market. Corn had not become plentiful and surplus cattle were either sold for feeders in Illinois or driven east for slaughter with only a grass finish. As corn production increased it became profitable to feed cattle, although for thirty years or more grass cattle raised in Iowa continued to go to Illinois and east for further feeding. Cattle fattening in Iowa also was encouraged by the coming of railroad transportation in the fifties. Freight rates and price relationships were favorable to marketing corn as beef.

Until after the Civil War most of the cattle fattened in Iowa were raised in Iowa. The first range cattle to come into the state were from Texas and were unsatisfactory as feeders. In the eighties some thin cattle from the western range country began to come in. As grassland was plowed for cropping and corn production increased, the demand for these cattle developed rapidly. From this beginning the fattening of range cattle has become one of the important livestock enterprises in the state. Shipments of feeder cattle from the range country were not recorded in early days but the *Iowa Year Book of Agriculture* reports that three hundred thousand head were shipped into the state in 1910. In the seven years ending in 1945, in-shipments have averaged more than one million head each year.

The first cattle fed in Iowa were not started on feed until they were three years old or older. Grass was plentiful and cheap, and size and frame were wanted before grain feeding began so that each steer would carry the maximum amount of corn to market. After 1890 cheap grass was no longer available. Corn became relatively higher priced and the cost of fattening steers rose in terms of feed and labor. Consumer demand for lighter cuts also began to be felt about this time. Under these changed conditions experimental work demon-

strated that feeding younger and lighter weight cattle was more profitable. As a result the trend in beef production for the past sixty years has been to finish cattle for market at lighter weights and at younger ages. The great bulk of the beef steers and heifers fattened in Iowa, both native and range, are now put on the market as yearlings and two-year-olds instead of three- and four-year-olds as in the early days.

Corn has always been the basis of the fattening ration but methods of feeding it have changed. It was first fed as corn fodder by scattering it on the ground. Later, snapped corn was extensively used and during the sixties husked corn fed in bunks began to be used. Shelling and grinding and the use of crushed ear corn were later developments. Corn silage feeding has developed since 1900; silage has been used most in areas where roughage was needed in addition to the available hay.

The protein supplement feeds, now so widely used in cattle-fattening rations, were used by few feeders, and then only in small amounts, previous to 1900. As feed costs became increasingly important and Experiment Station feeding trials demonstrated the value of such supplements to corn, their use increased rapidly. Clover, alfalfa, and other legume hays also have largely replaced the timothy and prairie hay of the early days.

Cattle shelters also have undergone a marked change in the one hundred years since Iowa became a state. The United States Department of Agriculture report for 1862 said, "The only barns, with few exceptions, are poles or boards, forming a skeleton, covered with heavy masses of straw, from the interior of which nearly all light and air is excluded. The business of stock raising will never be properly remunerative until some attention, some expense is bestowed upon barns and cattle sheds." Capital to invest in improvements was not plentiful in those days and probably yielded greater return when used for other things. While experience through the years has shown that elaborate and expensive barns and sheds are not needed for beef cattle, those in use today bear little resemblance to the meager shelters of one hundred years ago.

#### STOCK-IMPROVEMENT MOVES

Many organizations have been active in improving beef cattle stock and methods of beef production in Iowa. One of the earliest was the Iowa Improved Livestock Association, organized in 1873 as the Fine Stock Breeders' Association and renamed in 1875.

The Corn Belt Meat Producers' Association, organized in 1903, also was an important influence in the development of the beef cattle industry. By 1903 such matters as freight rates, livestock marketing, animal health and disease control had assumed increased importance and this organization took an active interest in these problems.

As livestock numbers increased, the need developed for organizations representing each branch of the livestock industry. The Iowa Beef Producers' Association, organized in 1912, has actively co-operated with the Iowa State College Extension Service in promoting 4-H baby beef clubs, cattle feeder organizations, and other agencies interested in improving beef production. The training received by members of the 4-H clubs as to beef types, methods of feeding, management and marketing has had a profound influence on the entire industry.

State breed associations have been organized for each of the beef breeds and have been active in promoting the interests of their respective breeds. The Iowa Shorthorn Association was organized in 1915, the Iowa Aberdeen Angus Association in 1916, the Iowa Polled Hereford Association in 1917, the Iowa Hereford Association in 1937, and the Iowa Polled Shorthorn Club in 1941.

During 1944 and 1945, thirty-three district breed associations were organized to sponsor field days, sales, and 4-H baby beef activity. There are thirteen Hereford, thirteen Aberdeen Angus, and seven Shorthorn associations.