# UNIVERSITY OF KENTUCKY

## COLLEGE OF AGRICULTURE

THOMAS P. COOPER, Dean and Director

**Extension Division**


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## CIRCULAR NO. 96

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# Fundamentals of Live-Stock Judging
# A Study of Types and Breeds


**Lexington, Ky.**

**February, 1921**


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Published in connection with the agricultural extension work carried on by cooperation of the College of Agriculture, University of Kentucky, with the U. S. Department of Agriculture, and distributed in furtherance of the work provided for in the Act of Congress of May 8, 1914.

*FUNDAMENTALS OF LIVE-STOCK JUDGING.*

*A Study of Types and Breeds.*

Prepared under the direction of E. S. Good, Chairman, Animal Industry Group, by members of the Animal Husbandry Department.

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*Resigned May 15, 1920.

# Part I.

## INTRODUCTION

By E. S. Good and L. J. Horlacher.

The ancestors of all domestic animals were at one time wild and only those survived which were fitted by nature to endure climatic, food and other conditions of the country in which they lived. Man needed the labor, the food and the clothing which he could procure best by taming these wild animals. His next step then was to breed these animals and select and develop them along certain lines so that they would produce more meat or more milk or more wool or would perform his work more efficiently. By selecting those animals that varied to suit his needs and taste, he has developt our present types and breeds of domestic animals. This process is known as artificial selection.

While there is a tendency for the offspring to vary from the parents in some feature, yet, in the main, the offspring will resemble their parents or their near relatives according to the laws of heredity. Influences other than variation and selection, such as food, climate and care, have been important factors in developing our present types of animals.

For the purpose of continuing the improvement of the various breeds of live stock, record associations have been formed, one or more for each of the most important breeds, now numbering more than sixty. It is the specific business of each association to keep a register of pedigreed animals belonging to its particular breed and to advance the interests of the breed. These official registers of pure bred animals and their ancestors are a store of very valuable information.

One should understand the common terms used in live stock operations, such as pure-bred, scrub, cross-bred and grade. A pure-bred animal is an animal whose sire and dam are registered or are eligible to registry in a recognized breed association. A scrub is an animal whose sire and dam belong to no recognized breed. A cross-bred is an animal whose parents be-

long to two different breeds. A grade is an animal having a pure-bred for one parent and a scrub for the other. The scrubs in the country far outnumber all the pure-breds, cross-breds and grades combined.

Millions of dollars could be added to the profits of raising live stock if more attention were given to the breeding, feeding and care of domestic animals. It is said that the average cow of the United States produces about enough milk and butter to pay for her keep, while the pure bred or high grade cow produces enough milk and butter to give a good profit over the cost of feed and care. It is not possible, on account of financial and other reasons, for all people to raise pure-bred animals, but all should be able to raise high grades. No one should ever use a grade or scrub sire. Always use pure bred sires, because the characteristics of grade or cross-bred sires are unstable and the improvement of offspring by their use is uncertain.

A pure-bred parent will have more influence in determining desirable form, color and useful characteristics than will a scrub parent. This property is called "prepotency." The offspring of a pure-bred animal and a scrub animal is half-blood; the offspring of a half-blood female and a pure-bred male is three-quarters pure; the next generation of this system of breeding would be seven-eighths pure or a high grade. High grades cannot be obtained, however, by using a sire of one breed at one time and a sire of another breed at another time. By the continued use of a pure-bred sire of the same breed one can soon build up a herd of high grades which would be very useful and profitable animals.

Experience has shown that it requires a certain kind of animal to produce beef and quite a different kind to produce a large flow of milk. For this reason two distinct kinds of cattle have been develop't—beef cattle and dairy cattle. The beef animal has certain characteristics which stamp it as an animal which will produce meat rather than milk. We call this combination of characteristics "beef type." Likewise, the dairy cow possesses certain characteristics which make her valuable as a machine for producing milk. We call this combination of characteristics "dairy type." In like manner we have the "mutton type" and the "wool type" of sheep; the "lard type"

and the "bacon type" of hogs; and the "draft type" and "light type" of horses.

"Type" then may be defined as that combination of characteristics which makes an animal highly useful for a specific purpose.

Various breeds of animals have been evolved to meet the demand for each of the different types. Each breed has its own peculiar and special features, such as color, size, form and fleece, which are not found in the individuals of the other breeds. These special characteristics constitute what is called "breed type." For example, the Shorthorn and the Hereford both belong to the beef type of cattle, yet the ideal animals of each breed differ from those of the other in color, in size, in form and in other details.

Live stock judging is the basis of all animal husbandry work. Upon a full and correct knowledge of animal form and function depends a man's success in breeding, feeding, and in the practical handling of all classes of stock. The feeder who goes out to buy a bunch of steers, lambs or pigs must be able to recognize an animal of good form and constitution. The man who is buying a cow to supply milk for his own needs must know the essentials of dairy conformation which indicate good milk production. Most important of all, the breeder of pure bred animals must know the specific details of form and type for his particular breed and must have clearly in mind the ideal animal which he and his fellow breeders are trying to produce.

To be a good judge of animals should be the ambition of every farm boy or girl. A good live stock judge becomes so only after much patient study and constant practis. A systematic study of stock judging will do more toward developing logical and intelligent thinking and the ability to form decisions and stay by them than will a study of almost any other branch of agricultural work. The knowledge gained by such study will be a source of satisfaction and financial profit thruout life. Wise buying and selling, proper selection of stock for breeding and feeding, a knowledge of the excellence of his animals and their value, acquaintance with the market classes, and a more intelligent interpretation of market quotations, will aid the farmer in placing his business on a firmer and more profitable

basis. Combining definite knowledge with his business means that he will make more money than would otherwise be possible.

The farmer who has become a good judge of stock thru careful, systematic study will have a degree of recognition and influence in his community that may offer many opportunities for him to meet and mingle with the best informed live stock men, expert judges, prominent breeders and officials of shows and other agricultural organizations. He may thus come in touch with the best methods of breeding and handling stock and with men of affairs, and by his increased knowledge broaden his influence and usefulness to his community and the world at large.

In studying this circular the first thing to do is to learn the names and locations and the relative importance of the different parts of the animal in each particular type, by the use of the score card. After a large number of animals have been scored and the student has learned the method of examination so that he can see the animal by parts rather than merely as a whole, the score card need no longer be used. The next step is to compare two or more animals, sum up and balance the strong points and the weak points of each, and place the animals in the order of their merits; that is, the animal which is most nearly perfect should be the first prize animal, etc. The student's reasons for placing a ring of animals should be so definite and clearly fixed in mind that he can write a comparison of the animals justifying his decisions. This placing should be done without giving any attention whatever to breed characteristics. The third step is to study the characteristics of the different breeds of animals, taking into consideration the essential things for which the live stock breeder is working, such as size, color and fleece. It is a long task, the work of a lifetime, to become acquainted with the different breeds and should not be attempted very largely until the student has made a very close study of some one breed and has become a good judge of that breed.

The following pages are devoted to the discussion, first, of the principles of stock judging; second, of the different types of animals; and third, of the more common breeds.

# Part II.

# HORSES

By

W. S. Anderson

## JUDGING HORSES

*The Score Card* is inserted as a guide for the beginner in horse judging. Horses are not judged in competition at horse shows by the score card, but it is an excellent means of learning the scale of points. When the scale of points is thoroly mastered there is little further use for the score card.

In the scale of points with 100 as the maximum it will be noted that there are six general divisions as follows:

| | | |
|---|---|---|
| A. | General appearance | 16 points |
| B. | Head and neck | 8 points |
| C. | Forehand | 18 points |
| D. | Body | 12 points |
| E. | Hind quarters | 32 points |
| F. | Action | 14 points |

Too often judging is done by observing the general appearance of the horse and nothing more. To do this is to ignore five other divisions which ought to be carefully considered. Proficiency in judging can be attained by using the score card until every feature of the animal can be given due consideration.

In using the score card it is well to follow each division in order as it it is found on the printed card. Never give full score card value unless the particular feature cannot be improved.

It is well in judging horses to approach on the left side of the horse for an estimate of the general appearance. From this view point the carriage of the head, neck, and tail can be noted as well as the correctness of the pose.

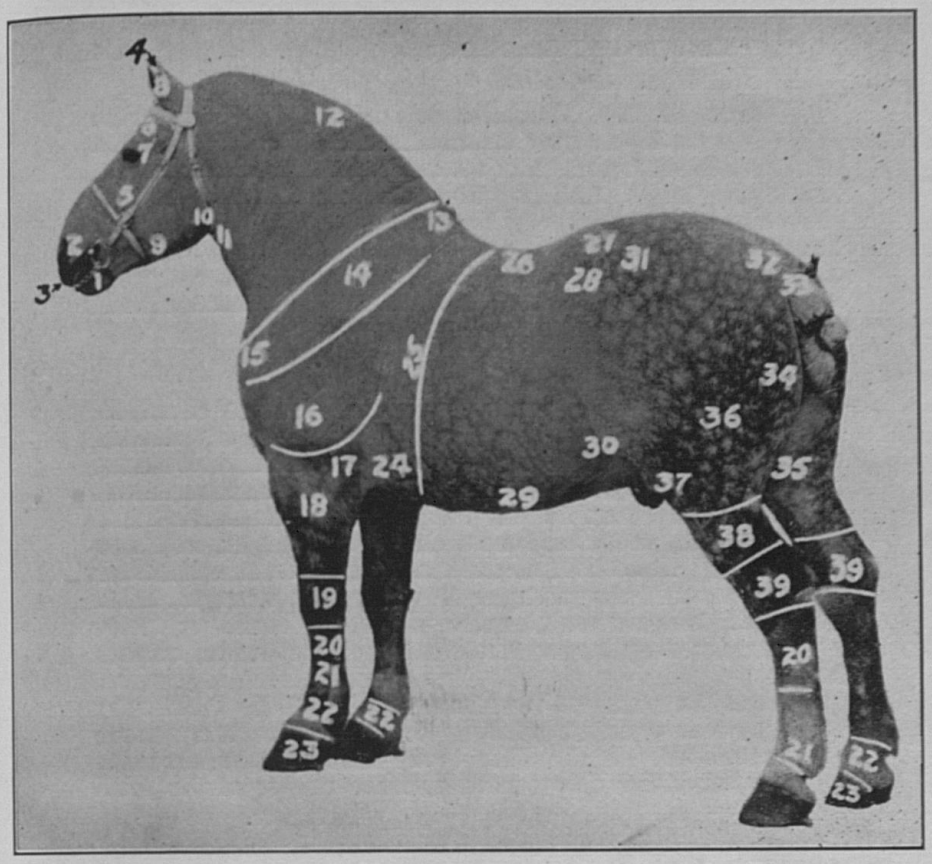


Fig. 2. The Points of the Draft Horse.

| | | |
|---|---|---|
| 1. Chin. | 14. Shoulder. | 27. Loin. |
| 2. Nostril. | 15. Shoulder point. | 28. Coupling. |
| 3. Nose. | 16. Arm. | 29. Belly. |
| 4. Poll. | 17. Elbow. | 30. Hindflank. |
| 5. Face. | 18. Forearm. | 31. Hip. |
| 6. Forehead. | 19. Knee. | 32. Croup. |
| 7. Eye. | 20. Cannon. | 33. Tail. |
| 8. Ear. | 21. Fetlock joint. | 34. Buttocks. |
| 9. Lower jaw. | 22. Pastern. | 35. Quarters. |
| 10. Throat-latch. | 23. Hoof. | 36. Thigh. |
| 11. Windpipe. | 24. Foreflank. | 37. Stifle. |
| 12. Crest. | 25. Heart girth. | 38. Gaskin. |
| 13. Withers. | 26. Back. | 39. Hock. |

## SCORE CARD FOR HORSES

| Standard of Excellence. | Perfect Score |
|---|---|
| **A. General Appearance—16 Points.** | |
| 1. **Height,** according to age and breed | 2 |
| 2. **Weight,** according to age and breed | 2 |
| 3. **Form,** close, deep, symmetrical | 4 |
| 4. **Quality,** bone clean, dense, fine, strong, tendons, defined; hide and hair fine; general refinement and finish | 4 |
| 5. **Temperament,** active, intelligent; disposition good | 4 |

| Standard of Excellence. | Perfect Score |
|---|---|
| **B. Head and Neck—8 Points.** | |
| 6. **Head,** straight face line, clean cut features, wide angle in lower jaw | 1 |
| 7. **Forehead,** broad, full | 1 |
| 8. **Eyes,** large, full, prominent | 1 |
| 9. **Muzzle,** fine, nostrils large, lips thin, even | 1 |
| 10. **Ears,** medium size, pointed, set close, carried alert | 1 |
| 11. **Neck,** long, well crested, throttle well cut out, head well set on | 3 |
| **C. Forehand—18 Points.** | |
| 12. **Shoulders,** very long, sloping yet muscular | 2 |
| 13. **Arms,** short, muscular, carried well forward | 1 |
| 14. **Forearms,** long, broad, muscular | 1 |
| 15. **Knees,** straight, wide, deep | 1 |
| 16. **Cannons,** short, broad, flat | 2 |
| 17. **Fetlocks,** wide, tendons well back, straight, well supported | 1 |
| 18. **Pasterns,** long, oblique (45 degrees) strong | 1 |
| 19. **Feet,** large, round, uniform; sole concave; bars strong; frog large; heels wide; horn dense, smooth | 5 |
| 20. **Legs,** properly placed. A perpendicular line dropped from the point of the shoulder should divide the leg and foot equally; while a line from the bony prominence of the shoulder blade should pass thru the center of the elbow joint and the center of the foot.. | 4 |
| **D. Body—12 Points.** | |
| 21. **Withers,** high, muscular, well finished at top, extending well into the back | 3 |
| 22. **Chest,** medium width, deep | 2 |
| 23. **Ribs,** well sprung, long, close | 2 |
| 24. **Back,** short, straight, strong, broad | 2 |
| 25. **Loin,** short, broad, muscular, strongly coupled | 2 |
| 26. **Flanks,** deep, full, long, low underline | 1 |
| **E. Hindquarters—32 Points.** | |
| 27. **Hips,** broad, round, smooth | 2 |
| 28. **Croup,** long, level, round, smooth | 2 |
| 29. **Tail,** set high, well carried | 2 |
| 30. **Thighs,** full, muscular | 2 |
| 31. **Stifles,** broad, full muscular | 2 |
| 32. **Gaskins,** broad, muscular | 2 |
| 33. **Hocks,** straight, wide, points prominent, deep, clean cut, smooth, well supported | 6 |
| 34. **Cannons,** short, broad, flat; tendons sharply defined | 2 |
| 35. **Fetlocks,** wide, straight, well supported | 2 |
| 36. **Pasterns,** long, oblique (50 degrees) smooth, strong | 2 |
| 37. **Feet,** not quite as large as front, otherwise as the front | 4 |
| 38. **Legs,** properly placed. A line from the point of the buttock should divide the legs and feet equally, while a line dropped from the hip joint should strike midway between the front and the rear of the foot | 4 |

| | Standard of Excellence. | Perfect Score |
|---|---|---|
| **F.** | **Action—14 Points.** | |
| 39. | **Walk**, rapid, flat-footed, elastic, in line | 7 |
| 40. | **Trot**, free, springy, square, going well off hock, fair fold of knee | 7 |
| | Total | 100 |

Note the top and the underline, the closeness of the coupling, the set of the tail, the length of leg with the depth of the body, and the fullness of quarters. The faults to be found from the side view are: the drooping, or "ewe" neck; flat, heavy withers; long coupling; low neck; steep croup; weak quarters; long legs; cut up flanks; and a body of too little depth. The depth of body should only lack an inch or two of being as great as is the length of the front legs.

The next position is to pass to the front of the horse. From this point observe the front line of the head, which should be approximately straight from poll to muzzle. Prominence of the forehead and the dished condition are both objectionable. There should be width between the eyes. The eyes themselves should be prominent and alert. The "sleepy" animal is to be marked low. Note the chest development and the set of legs and feet.

Pass from the front to the right side of the horse to review the impression of his general appearance as seen from the left side. The next position is in the rear to observe the set of legs and feet. The legs should appear to set on the four corners of the body. They should be straight, and the feet held at the right angle. The toes should not turn either in or out. The nature of the quarters, hocks and gaskins can be studied from the rear.

The quarters should be full and heavily muscled. The gaskins ought to be broad and strong. The hocks should be wide, clean, and held at the proper angle.

A closer examination is necessary to determine the cleanness of the bone and the nature of the feet. The front cannon bones are to be examined on the inside for splints. The pasterns for side bones and ring bones, and the joints for wind-puffs. The hand may have to be used to make these examinations.

To examine the feet they must be lifted. The require-

ments for a good foot are: wide heels, the frog large and elastic, the bars well defined and strong to prevent contraction of the heel, and the sole concave and strong to protect the interior of the foot. The foot is of unusual importance because if it gives way for any reason the horse is worthless.

*Action.* Certain requirements in action are necessary for all breeds of horses, as well as for mules. The gaits expected of all breeds are the walk and the trot. Of these the walk is of greater importance for the reason that work is done at that gait. The requirements for this gait are that it shall be true and elastic. In judging the gait have the animal moved so he can be viewed from the front as he approaches and from the rear as he moves off, as well as from the side as he goes by. The feet should be lifted clear of the ground with a quick, snappy movement and be carried forward in a straight line for a long stride. Score off heavily for the faults of carrying the feet outward or inward from the straight line. The side view will tell the nature of the impact, whether it be elastic or heavy. The elastic movement is due to long, sloping pasterns that are well flexed with the knees and hocks.

The trot is the two-beat movement in which the diagonal feet strike the ground in unison. To be properly executed the knee must fold and the hock flex in accord with the pasterns so that the bottom of the foot can be seen clearly from the rear and the foot itself be lifted some little distance off the ground. In light horses the extreme speed is often made by the front foot being lifted almost to the body. As in the walk, the faults of trotting are to be found in the outward swing of the foot as it is carried forward, which is known as paddling. Another criticism must often be made of the lack of action. There may be too little fold of knee or flexion of hock.

The saddle types have a fancy gait known as the canter which is nothing more than the gallop done slowly and gracefully, giving the rider a most pleasant sensation of agreeable motion. The running walk, or stepping pace, is known in show rings as the slow gait. It is a most important gait and should be done with free, elastic movement. The rack is the one, two, three, four beat and is a highly artificial gait, but the most spectacular in the show ring of the five gaits save, perhaps,

the trot. The rack, to be of great value, should be done at considerable speed and with excellent action all around. Lack of experience at this gait may be discovered by observing the rider as he places weight first on one rein of the bridle and then on the other. This is very objectionable and would place a horse far down. Next in importance to this defect is lack of speed and of action.

*Faults of Action.* In judging the action of horses the following defects may be observed:

Forging—Striking the under surface of the shoe on the front foot with the toe of the hind foot.

Interfering—Brushing the fetlock of one leg with the foot of the other as it passes.

Paddling—Throwing out a front foot as it makes the stride.

Winding—Twisting the moving leg in front of the supporting one.

Scalping—The front of the hind foot at the line of hair is hit by the toe of the front foot.

Pounding—Impact of the foot when there is lack of proper flexion and elasticity.

Rolling—Undue motion of shoulders, found in horses with excessive width in front.

*Blemishes.* Nothing is more important in judging horses than to discover blemishes and unsoundness. A blemish is usually caused by accident and they vary from small marks to wounds that incapacitate the horse for service.

*Unsoundness.* Unsoundness, unlike the blemish, is not necessarily the result of accident, but comes because the strain which the animal has been under was too great for his constitution. A few of the most important unsoundnesses are:

Heaves—Difficult respiration.

Lameness—Unwillingness to make a foot or leg do its full share.

Roaring—A laryngeal affection which causes difficulty in breathing.

Bog Spavin—A soft, puffy swelling of the inside and front of the hock.

Bone Spavin—A bony enlargement of inside and front of the hock.

Curb—A bony enlargement located on the back of the hock.

Thoropin—A swelling of the thin upper part of the hock, involving the large tendon only.

Splint—A bony projection on the inside of the front cannon bone.

Quarter-crack—A splitting of the wall of the foot.

Sidebone—A bony growth on the rear part of the foot just above the hair line.

Ringbone—A bony growth on the pastern bones at the lower limit of the hair.

*To Tell the Age of Horses.* By the time the horse is nine months of age he has six pairs of temporary nipper teeth.

At the age from two and one-half to three years the two middle pairs of temporary nippers are lost and permanent ones appear.

At the age from three and one-half to four years, two more pairs of permanent nippers take their places.

At the age from four and one-half to five years the other two pairs of permanent teeth grow in.

At the age of six the cups of the two central teeth are worn smooth.

At the age of seven the cups of the second pair are worn smooth.

At the age of eight the incisors are all worn smooth.

### The Breeds of Horses

| | Type | Breed |
|---|---|---|
| Horses | Draft | Percheron |
| | | Shire |
| | | Clydesdale |
| | | Belgian |
| | | Suffolk |
| | Light | Thorobred |
| | | Standardbred |
| | | American Saddle |
| | Carriage | German Coach |
| | | French Coach |
| | | Cleveland Bay |
| | | Hackney |
| | Ponies | Welch |
| | | Shetland |
| | | Hackney |

## Draft Horses

There are five main breeds of draft horses, namely: Percheron, Belgian, Clydesdale, Shire and Suffolk.

### Percheron

The Percheron horse originated in La Perche, France. They are now bred and used extensively in America.

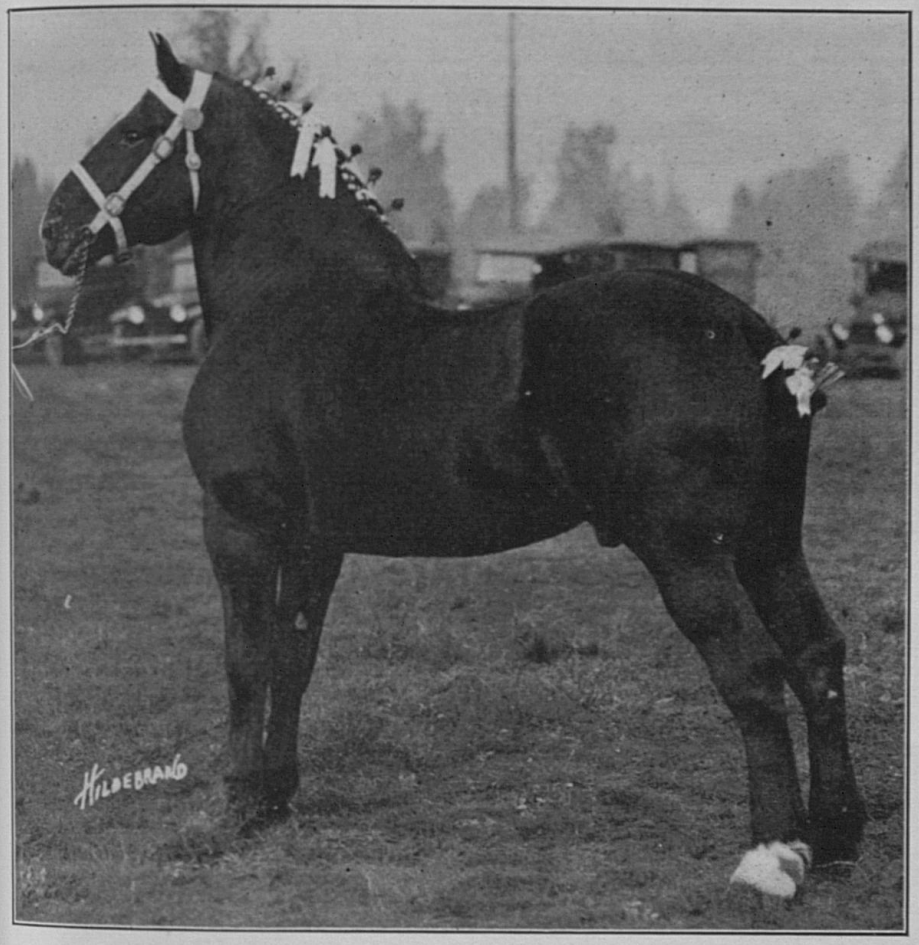


Fig. 3. Percheron Stallion. A Grand Champion.

Color—The color is gray and black, with a small number bay or brown.

Size—The size varies from 1,500 to 2,000 pounds. The height ranges from 16 to 17 hands, as a rule.

Conformation—The Percheron has a refined head and

neck, and a clean bone of good quality. The best specimens are short of back and long underneath. Tail is set fairly high, which with the carriage of head and neck gives an attractive appearance. The legs show strength of bone and the feet have good size and texture.

Action—The Percheron is the most active of all the draft breeds. The walk and trot are snappy and elastic.

### Shire

The Shire horse originated in Cambridge and Lincolnshire, England.

Color—Black, bay, chestnut, roan and gray can be found in the breed. They have a greater variety of colors than any other draft horse. Bay, with the white or roan markings, is perhaps the color most often found.

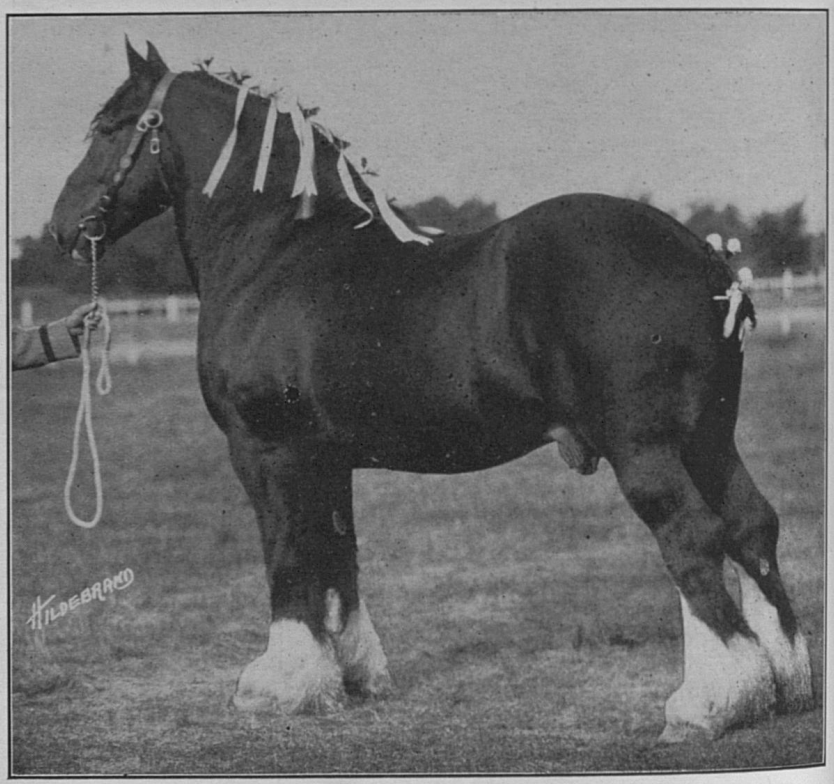


**Fig. 4. Shire Stallion. A Grand Champion.**

Size—The Shire is a very large and heavy horse, the weight ranging from 1,700 to 2,200 pounds. In height the Shire varies from 16 to 17½ hands.

Conformation—The breed is extreme of scale, head and neck massive, barrel long and full, with heavy quarters. The bone is very large and round, and the hoof of somewhat a shelly texture. The legs in the rear below the hock and knee have a coarse, long hair, called "feather."

Action—Owing to his size he is sluggish in movement.

### Clydesdale

The Clydesdale horse originated in the valley of the River Clyde, in Scotland. From this territory they were imported

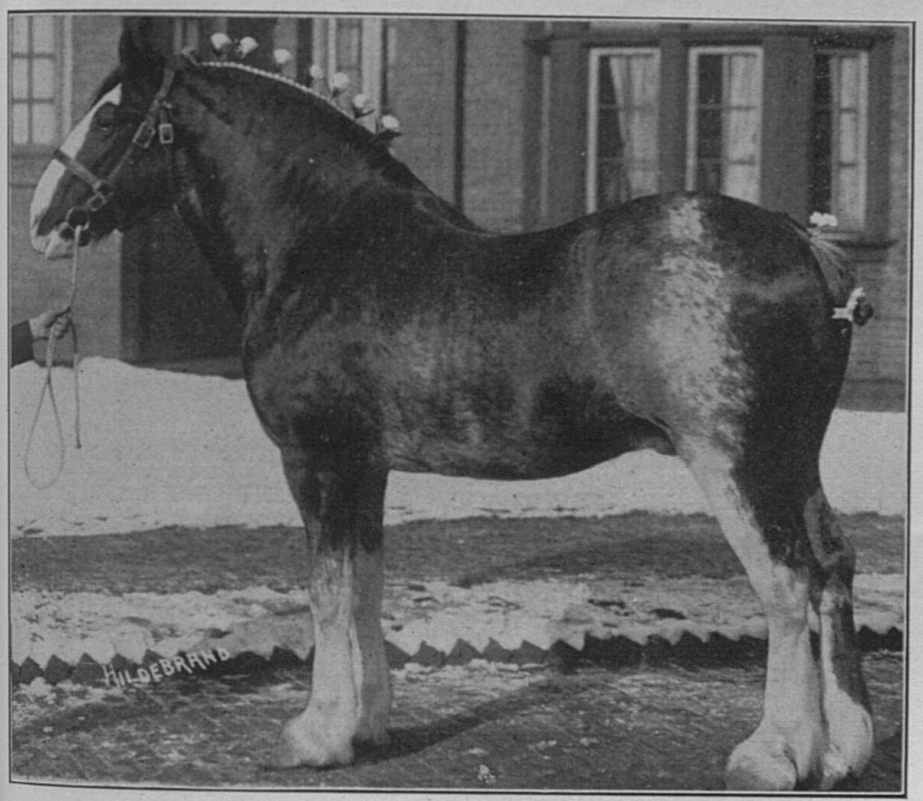


Fig. 5. Clydesdale Stallion. A Grand Champion.

into America and are being produced here in considerable numbers.

Color—The popular colors are bays and browns, but gray,

black, chestnut and roan are found. As is the case with the Shire, to which they are related, white markings are common. Often too much white, in the form of splashes on the body, and frequently above the knee and hock, is found.

Size—The Clydesdale is not as massive as the Shire, yet he is of greater scale than the Percheron. The weight ranges from 1,600 to 2,000 pounds. In height the average is near 16½ hands.

Conformation—The Clydesdale does not have as attractive a head as some other draft breeds; nor is the barrel as full and compact as breeders desire, but the shoulder is long and sloping and the croup is broad and level. It is claimed for the Clydesdale horse that his legs and feet are superior to those of other draft breeds. The pasterns are long and sloping and the rear of the cannon bones shows abundance of long, fine hair or "feather."

Action—The one surpassing quality of the breed is its action. The stride is straight and sprightly. The hocks are kept well together in both walking and trotting.

### Belgian

The Belgian horse originated in Belgium from Flemish horse ancestry.

Color—Roan and chestnut are the two colors most frequently found in the breed, but all the other colors are possible.

Size—In size the Belgian ranks next to the Shire. The height is about 16 hands, and the weight of the best specimens goes to 2,000 pounds.

Conformation—The head is medium in size, and the neck is short and heavy. The barrel is wide and closely coupled, and the legs are short. The bone is inclined to be round and refined, and the feet are small. Perhaps the greatest fault of the breed is too steep a croup, altho breeders are striving successfully to correct the defect.

Action—Owing to the width of the Belgian horses they are inclined to roll or paddle at the walk. The trot, however, is fairly true and rapid.


**Fig. 6. Belgian Stallion. A Grand Champion.**

## Suffolk

The Suffolk horse originated in Suffolk County, England, the entire breed springing from the Crisp horse of Ufford, foaled in 1768. The number in America is not large.

Color—All Suffolk horses are chestnut in color. No other breed of horses is uniform in color.

Size—The Suffolk is a horse of medium size, being the smallest of the five breeds of draft horses. The height is from 16 to 16½ hands, and the weight up to 1,800 pounds.

Conformation—The head is heavy and the neck short, thick and arched. The barrel is short, deep and thick. One fault of the breed is that the body is too compact. The legs are

well set. The bone is clean and not as heavy as in the other breeds.

Action—Their action is straight and true with more rapidity of movement than is exhibited by the heavier draft breeds.

## Light Horses

There are three main breeds of light horses, namely: Thorobred, Standardbred and American Saddle.

### Thorobred

*Origin.* The Thorobred originated in England about two hundred years ago. The breed was developt to meet the demand for a race horse and is the oldest and the best bred of all breeds of domestic animals. The Thorobred was early introduced into America and the blood has been used extensively in improving the light horses for farm use.

*Color.* Bay, black and chestnut are the usual colors. Gray and roan are not often seen.

*Size.* The best families of the Thorobred are close to 16 hands in height and weigh in good flesh 1,100 to 1,200 pounds; but many strains are 15 to 15:2 hands and only weigh from 950 to 1,050 pounds. The size is not as important as the speed.

*Conformation.* The head and neck of the Thorobred denote refinement. The large, clear eye with its prominence and intelligent expression is always attractive. The neck is long and arched and rises out of sharp, neatly turned withers. The top line of the barrel is short in the best specimens. The coupling is close and ribs well sprung. The croup should be level and the quarters straight. From the standpoint of the show ring the most serious fault of the breed is the too great length of leg, due in large measure to the fact that for 200 years it has been selected to run fast.

*Action.* The Thorobred has three natural gaits; walk, trot and gallop. The trot is neglected in his training and no attention is given to his walk, but at the running gait he is the swiftest of all animals. The best record for a mile is less than 1 minute and 36 seconds.

### Standardbred

*Origin.* The Standardbred, or trotting horse, originated in America and most all of them trace back in their lineage to Hambletonian 10, who is the founder of the breed. He was foaled in 1849 and the breed has been developt since that date.

*Color.* All the colors, chestnut, black, bay, roan and gray appear in the breed and possibly even dun. Chestnut, black and bay are the most fashionable colors.

*Size.* In size the Standardbred ranges from 15 to 16 hands in height, and from 900 to 1,200 pounds in weight.

*Conformation.* The Standardbred is the plainest of the breeds of light horses. The breed is not old and has been bred for speed at the trot and pace, with little effort given to refinement. The head is plain, and the neck is not greatly arched. As a rule the back is short, and the underline is long. There is breadth and strength in the loins. The tail setting varies from the level croup to the sloping one. The quarters and gaskins are strong. The legs may be long, medium or short, but they must not be too short. The bone is hard and durable. The feet are medium in size and the horn is of most excellent quality.

*Action.* For the trotting families of the Standardbred horse the natural gaits are the walk, trot and gallop. An occasional Standardbred horse is double gaited. He can go at both the trotting and pacing gaits. A few of them are trained to race as trotters, and then trained to race as pacers. As a rule, however, a distinct inclination is shown for one gait or the other.

If the horse shows a disposition to trot he is trained at the gait. Horesmen show a distinct preference for the line-gaited trotting horse. By line-gaited is meant a movement in which the hind feet move in a line with the front feet. When the horse is trotting at great speed the front foot is lifted from the ground so that the rear foot passes some distance beyond where the front one was at the beginning of the stride.

The passing-gaited trotting horse is at a discount. Those horses that have the fault go wide in the rear. The hind legs pass the front ones on the outside. It is a gait without ease or grace of movement.

The trotting horse lifts his knee very high when going fast at the trot and also flexes well his hocks.

Pacing is the gait in which the feet on the same side of the body move forward in unison. It is not in demand as is the trotting gait, but faster records are made by pacing horses than are made by trotting horses.

## The American Saddle Horse

*Origin.* The American Saddle horse originated in Kentucky about 1850, but it was not until 1892 that the American Saddle Horse Breeders' Association was formed.

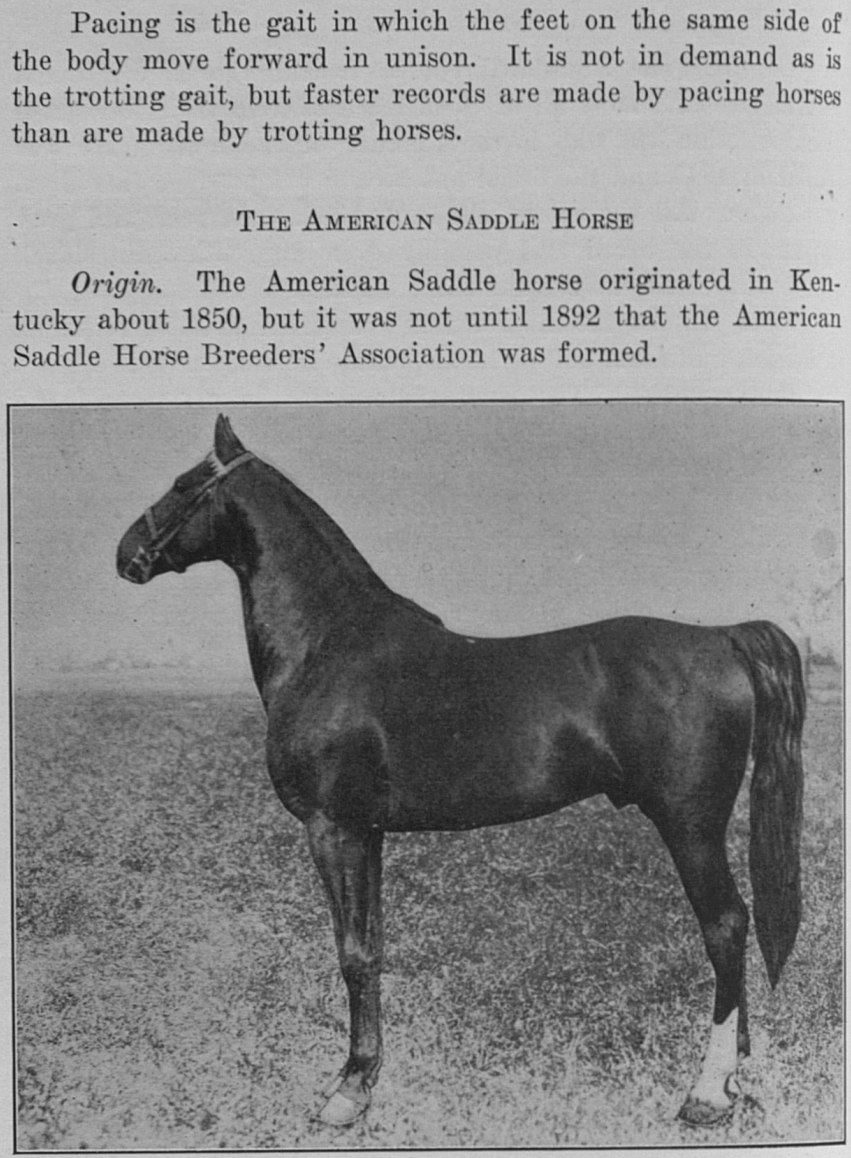

Fig. 7. A Saddle Stallion. A successful show horse. He is short of back, level of croup, clean of leg and of good style and finish.

*Color.* The American Saddle horses are dun, gray, roan, bay, black and chestnut in color. Bay and chestnut are the colors most frequently seen. Like the other breeds of light horses, the saddle horses are going to the chestnut color.

*Size.* The Saddle horse varies from 15 hands to 16 hands

in height, and in weight from 900 to 1,150 pounds. The standard in height is 15:3 hands, and in weight 1,050 pounds.

*Conformation.* The most perfect specimen of the breeders' art is to be seen in the Saddle horse at his best. The head of this horse is neat and well set on a neck gracefully arched. The top line is short and the under line long. The ribs are well sprung and the coupling is short. The croup is level and the tail carried in water-spout fashion. The bone is small but very strong. The tendons are prominent. The pasterns are large, with the right slope to give elasticity of movement. The conformation is ideal for strength, speed and beauty.

*Action.* When seen at his best the saddle horse has an action unique for its gracefulness and ease. The hock is flexed and the knee folds gracefully when he goes at the trot. The three-gaited saddle horse has the gaits: flat footed walk, trot and canter. The five-gaited horse has, in addition to the three mentioned, the rack and the running walk or, in lieu of the running walk, a slow pace may be allowed.

## Carriage Horses

There are four breeds of carriage horses, but aside from the Hackney few are bred in America.

The carriage horse is a large, rangy, upstanding animal, able to go rapidly at the trot. He is larger than the light breeds but not as heavy nor as sluggish as the draft horse.

Some families of the Hackney are small and compact enough for show purposes and are exhibited under the saddle or in fine harness. The prominent feature which they display is the flashy action. Often the fold of the knee is so perfect it is lifted up to the body as they go at the trot.

## Ponies

Ponies are supposed to have originated on cold and rocky islands. They vary in height from 34 to 56 inches. They show a wide range of colors and some of them are flashily marked by white blotches.

Their bone is small and of very fine texture. The barrel is wide and deep and well muscled. They are very strong for their weight and usually of great vigor.

## Questions

1. Of what use is the score card in learning to judge horses?

2. Name thirty points of the horse.

3. Describe the mouth of a six-year old horse.

4. Describe a ringbone, a curb, a splint and a thoropin.

5. Where did each breed of draft horses originate?

6. What is the chief difference in conformation between the Percheron and the Belgian? Between the Clydesdale and the Shire?

7. What is the usual height and weight of each of the three breeds of light horses?

8. What are the gaits of the Thorobred horse?

9. Give the origin of the Standardbred horse and the American Saddle horse.

10. What are the essential features of the conformation of the American Saddle horse? What are the gaits of the three and of the five-gaited horses?

# Part III.

# BEEF CATTLE

By

WAYLAND RHOADS AND L. J. HORLACHER

## JUDGING BEEF CATTLE

The first thing to do in learning to become a proficient judge of beef cattle is to study the score card, learning the names of all the parts of the animal, their location, and their relative values. The main points to be considered in determining the value of the fat steer are form, quality and condition.

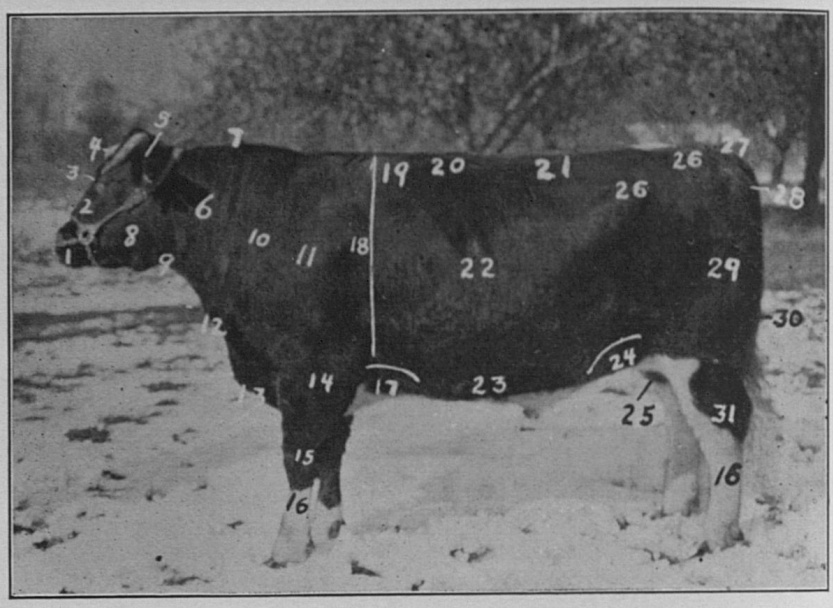


Fig. 8. Points of the Beef Steer.

1. Muzzle
2. Face
3. Eye
4. Forehead
5. Ear
6. Neck
7. Crest
8. Jaw
9. Throat
10. Shoulder vein
11. Shoulders
12. Dewlap
13. Brisket
14. Arm
15. Knee
16. Shank
17. Fore flank
18. Chest or heart girth
19. Crops
20. Back
21. Loin
22. Ribs or side
23. Belly or underline
24. Rear flank
25. Cod or purse
26. Rump
27. Tail head
28. Pin bones
29. Thigh
30. Twist, between legs
31. Hocks

## SCORE CARD FOR BEEF CATTLE—FAT

| Standard of Excellence. | Perfect Score |
|---|---|
| **A. General Appearance—35 Points.** | |
| **Weight,** estimated.....lbs.; actual.....lbs.; according to age.....lbs.; dressed wt.....% | 8 |
| **Form,** straight top and bottom lines; deep, broad, lowest, compact, symmetrical | 9 |
| **Quality,** firm handling; hair fine; pliable skin. dense, clean bone; evenly fleshed without ties or rolls | 9 |
| **Condition,** deep, even covering of firm flesh, especially in the regions of valuable cuts | 9 |
| **B. Head and Neck—7 Points.** | |
| **Muzzle,** mouth large, lips thin, nostrils large | 1 |
| **Eyes** large, clear, placid | 1 |
| **Face,** short, quiet expression | 1 |
| **Forehead,** broad, full | 1 |
| **Ears,** medium size, fine texture | 1 |
| **Neck,** thick, short; throat clean | 2 |
| **C. Forequarters—11 Points.** | |
| **Shoulder Vein,** full | 2 |
| **Shoulder,** covered with flesh, compact on top; snug | 5 |
| **Brisket,** advanced, breast wide | 1 |
| **Dewlap,** skin not too loose and drooping | 1 |
| **Legs,** straight, short; arm full; shank fine, smooth | 2 |
| **D. Body—31 Points.** | |
| **Chest,** full, deep, wide; girth large; crops full | 5 |
| **Ribs,** long, well sprung, thickly fleshed | 8 |
| **Back,** broad, straight, well fleshed | 8 |
| **Loin,** thick, broad, deeply fleshed | 8 |
| **Flank,** full, even with underline | 2 |
| **E. Hindquarters—16 Points.** | |
| **Hips,** smoothly covered, distance apart in proportion to other parts | 2 |
| **Rump,** long, level, even, wide; tail head smooth, not patchy | 4 |
| **Pin Bones,** not prominent, far apart | 1 |
| **Thighs,** full, deeply fleshed | 3 |
| **Twist,** full, deep; purse in steers, full | 4 |
| **Legs,** straight, short, shank fine, smooth | 2 |
| Total | 100 |

## SCORE CARD FOR BEEF CATTLE—BREEDING

| Standard of Excellence. | Perfect Score |
|---|---|
| **A. General Appearance—45 Points.** | |
| **Weight** according to age—Estimate.....lbs.; actual.....lbs. | 6 |
| **Form,** straight top and underline; deep, broad, lowset, compact, symmetrical | 9 |
| **Quality,** hair fine, bone strong, not coarse; skin pliable; mellow, even covering of firm flesh, free from rolls; features refined, not delicate; stylish | 9 |
| **Constitution,** chest capacious; brisket well developt; flanks deep, bone strong | 9 |
| **Condition,** thrifty, well fleshed but not excessively fat, deep covering of flesh | 5 |
| **Disposition,** quiet, gentle | 2 |
| **Breed Type,** having all characteristics of breed | 5 |
| **B. Head and Neck—7 Points.** | |
| **Muzzle,** mouth and nostrils large; lips thin | 1 |
| **Eyes,** large, clear, placid | 1 |
| **Face,** short, quiet, expressive | 1 |
| **Forehead,** broad, full | 1 |
| **Ears,** medium size, fine texture | 1 |
| **Neck,** thick, short; throat clean, according to breed | 2 |
| **C. Forequarters—9 Points.** | |
| **Shoulder Vein** full | 1 |
| **Shoulder,** covered with flesh, compact | 4 |
| **Brisket,** well developt, breast wide | 1 |
| **Dewlap,** skin not too loose and drooping | 1 |
| **Legs,** straight, short, set well apart; arm full, bones smooth, strong, neither too coarse nor too fine | 2 |
| **D. Body—24 Points.** | |
| **Ribs,** long, arched, thickly fleshed | 6 |
| **Back,** broad straight, thickly and evenly fleshed | 8 |
| **Loin,** thick, broad, deeply fleshed | 8 |
| **Flank,** full, even with underline | 2 |
| **E. Hindquarters—15 Points.** | |
| **Hips,** smoothly covered, width in proportion to other parts | 2 |
| **Rump,** long, level, wide and even in width; tail head smooth, not patchy | 3 |
| **Pin Bones,** not prominent, width in proportion with other parts | 1 |
| **Thighs,** full, fleshed well down to hock | 3 |
| **Twist,** deep, plump, indicating fleshiness | 4 |
| **Legs,** straight, short, set well apart, bones smooth, neither too fine nor too coarse | 2 |
| Total | 100 |

*Form.* The beef type is blocky, having straight top and bottom lines, a broad back, deep, wide body, and short legs. The head should be short, wide and squarely built. The neck should be short and thick, blending smoothly into shoulders that are compactly laid in. The crops and heart girth should be full so that there will be no depression behind the shoulders. Widely sprung, well covered ribs will do much to overcome this defect. The back and loin should be wide and thickly fleshed. The hips should be smooth, and the rump long, wide and level, with the tailhead neither prominent nor drooping. The hindquarters should be deep, full and square, letting down low in the twist.

*Quality.* Quality in the fat steer means not only the proper kind of bone, hair and skin, which is known as "general quality," but also smoothness and firmness of covering or "quality of flesh." General quality is indicated in a soft, silky hair, clean, dense bone, general refinement of features and a soft, mellow, pliable, elastic hide. A coarse head, coarse bone and joints, open shoulders, and prominent hips indicate poor quality. Quality of fleshing is indicated by a thick, even covering of firm elastic flesh over the whole body, free from ties, lumps, rolls or patches. A tie is a depression, usually in the back, where the skin is closely attached to the bone. Rolls are usually found along the ribs. Lumps and patches occur on the back, ribs and rump, especially around the tailhead. These are caused by the fat being laid on unevenly and indicate that the fat is not evenly distributed thruout the lean.

*Condition.* Condition is the thickness or degree of fleshing. It is an important factor in determining the dressing percentage of the steer. The finished steer is thickly covered on his sides, has a full tongue root, a full, hard cod, and a full, low flank.

The hand must be used to determine the condition of the steer.

The meat from the fat steer is more tender, juicy and palatable, and can be stored with less danger of loss.

*Method of Examination.* Before handling the animal it is well to note the general appearance from a distance of about

ten feet. First stand in front and note the size and shape of the head, straightness of legs and width between them, and the general straightness of side lines. From the side note the length of neck, length and depth of body, fulness of brisket, straightness of top and bottom lines, lowness of flanks, levelness of rump, and tailhead and depth of quarter. From behind note the thickness of quarter, depth of twist, straightness of legs, size of paunch, and symmetry of lines. After all this has been done the animal can be handled to determine his handling quality and thickness of flesh.

*Comparative Judging.* The next step after the score card has been mastered is to place two or more animals according to merit, considering the three points upon which most emphasis is placed, namely: form, quality and condition. The animal which most nearly approaches the ideal is the first prize animal, the next best, the second prize animal, etc. No hard and fast rules can be laid down as to what to do in all cases.

*Breeding Cattle.* In beef cattle the breeding type and the fat type are essentially the same, tho the breeder must have in view the demands of his own interests while giving full consideration to those of the feeder and the butcher. In addition to the points considered in the fat steer he must select for size, constitution, breed type, and sex characteristics.

*Size.* Altho the large animal does not always win first in the show ring, yet size for age is a distinct advantage.

*Constitution.* A strong constitution is indicated by a large nostril, wide, strong muzzle, wide spring of rib, wide chest floor, a capacious middle and a general appearance of thrift and vigor in the whole animal. An animal with a weak constitution will be of very little value in a breeding herd or feed lot.

*Breed Type.* A breeding animal must, if it is pure bred, have all of the particular characteristics which distinguish that breed from any other. For example, a Hereford must be red, with a white face and white markings. An Aberdeen Angus must be naturally polled. A Shorthorn with a horn as large and heavy as that of the Hereford would be "off type" in that respect.

*Sex Characteristics.* The bull should be masculine in the head, have a crest on the neck, and be relatively heavily developt in the forequarters. The cow, on the other hand, is more feminine in the head, lacks the development of the forequarters which the bull has, and is relatively heavier thruout the middle and hindquarters.

## Market Classes

On our markets cattle are divided into the following classes and grades.

| Classes | Grades |
|---|---|
| Beef Cattle | Prime, Choice, Good, Medium and Common Rough Steers. |
| Butcher Stock | Prime, Choice, Good and Medium Heifers and Cows.<br>Common Rough Steers.<br>Choice, Good and Medium Bulls. |
| Cutters and Canners | Good, Medium, and Common Cutters.<br>Good, Medium, and Inferior Canners.<br>Bologna Bulls. |
| Stockers and Feeders | Fancy Selected, Choice, Good, Medium, Common and Inferior Feeders and Yearling Stockers.<br>Medium and Common Stock Heifers.<br>Feeder Bulls. |
| Veal Calves | Choice, Good and Common. |

The names of the various classes indicate the uses to which cattle in those classes are put. The grades refer to quality, condition, and conformation.

The above classification includes cattle of the beef type, the dairy type and the dual-purpose type. Pure bred cattle used for breeding purposes are not included.

## Breeds of Beef Cattle

The breeds of beef cattle discussed here are: Shorthorn, Polled Shorthorn, Hereford, Aberdeen Angus and Galloway.

### Shorthorn

The original home and place of development of this breed is northeastern England. They were first brought into Ken-

tucky in 1817 and some of the early breeders and developers of the breed were Kentuckians.

*Color.* The colors are red, white or a combination of the two in the roan and broken colored animals. At one time white was unpopular, but now it is desirable for an animal to show some white.

*Size.* The Shorthorn ranks with the largest of the beef

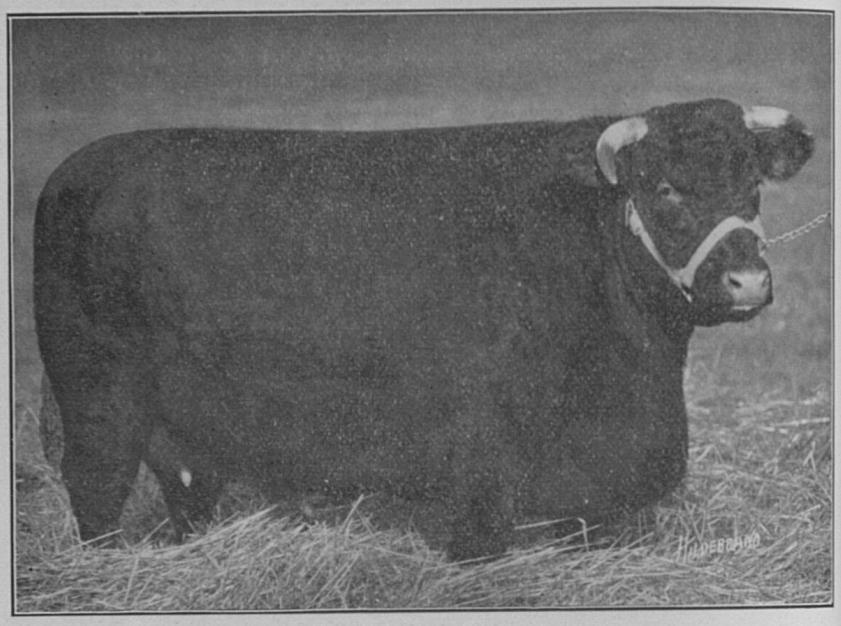

Fig. 9. Shorthorn Cow. A Grand Champion.

breeds. Mature bulls reach 2,200 pounds and mature cows 1,500 to 1,600 or more.

*Conformation.* The breed as a whole is essentially of the beef type, being broad and squarely built, possessing a wide spring of ribs, and deep natural fleshing, with the body set rather low to the ground.

Some strains or families of Shorthorns have been developt for milk production as well as beef. In these the development of the udder has been given attention. This type is usually slightly longer in body, having a well-developt udder, a good barrel for feeding capacity and usually is higher off the ground than the strictly beef type.

The Shorthorn crosses well on other cattle. Its popularity has carried it to all continents. It is more widely distributed than any other breed of cattle.

### Polled Shorthorn

This breed is essentially the same as the Shorthorn. Formerly they were known as Polled Durhams, with a large part of the animals registered in the Shorthorn Herdbook as well as in the Polled Durham Herdbook. Practically all the animals of this breed now are eligible for registry in the American Shorthorn Herdbook. Early Polled Durham breeding was carried on in Western Ohio.

The characteristics of the Polled Shorthorn are the same as those of the Shorthorn with the exception that they have no horns.

### Hereford

*History.* The native home of this breed is Herefordshire in England. Early breeders selected animals of good type, of large size and possessing good grazing ability. Hereford steers

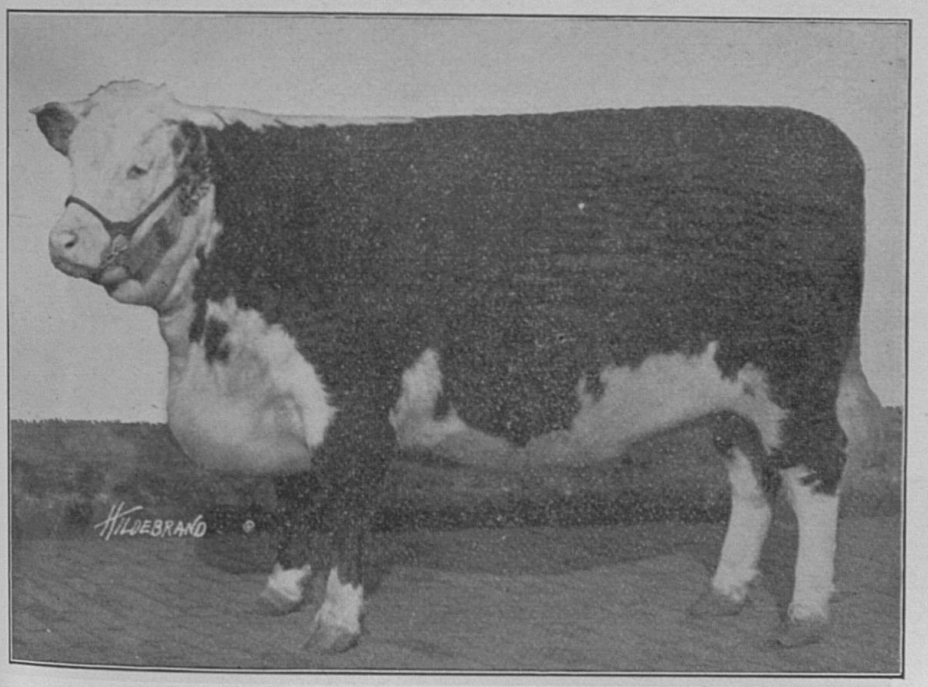


Fig. 10. Hereford Cow. A Grand Champion.

were prominent in the early fat stock shows of Southern England. The first importations of these cattle to the United States were made by Henry Clay in 1817.

*Color.* The colors are red and white. The head and part of the top line and underline are usually white, with the balance of the body red.

*Size.* Hereford cattle are among the largest, mature bulls weighing 2,200 pounds, cows weighing 1,500 or more.

*Conformation.* The Hereford has been bred strictly for beef production; therefore the type is of the best for beef, being deeply fleshed, well coupled and low to the ground.

The breed is well adapted to taking care of itself under range conditions and its popularity is marked on the western ranges. For early maturity and the production of baby beef, the Hereford is the equal of any breed.

### Aberdeen Angus

*History.* The native home and original place of development of this breed is Northeastern Scotland, the land there be

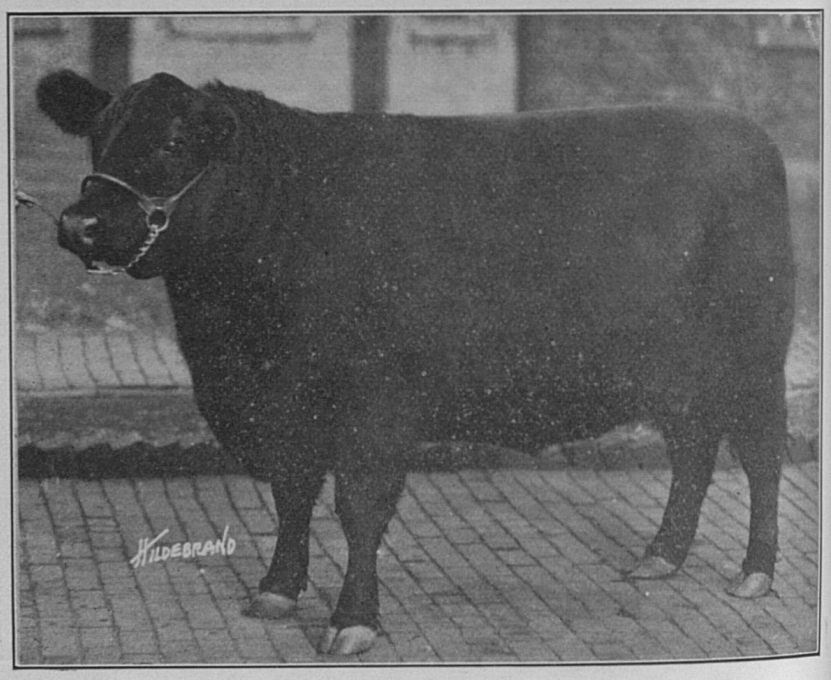


Fig. 11. Aberdeen Angus Cow. A Grand Champion.

ing hilly or mountainous and better suited for pasture than for anything else. Angus cattle were first imported into the Unied States in 1873.

*Color.* Black.

*Size.* Mature bulls 2,000 pounds, with mature cows reaching 1,450 pounds or more.

*Conformation.* The head is polled or hornless, and the body somewhat more cylindrical in shape than that of the Shorthorn or Hereford. Compactness is an important feature, typical animals being close to the ground, well coupled, deeply fleshed and smooth over all parts.

In the show ring the Angus steer has made a record, taking more prizes at the International Livestock Exposition in late years than any other breed. Early maturity and good feeding ability are characteristics of the Angus.

### Galloway

*History.* The native home of the Galloway is the southwestern part of Scotland, a rough, damp country which requires rugged animals. The origin of the breed is obscure, but it has been improved since the eighteenth century. It was not

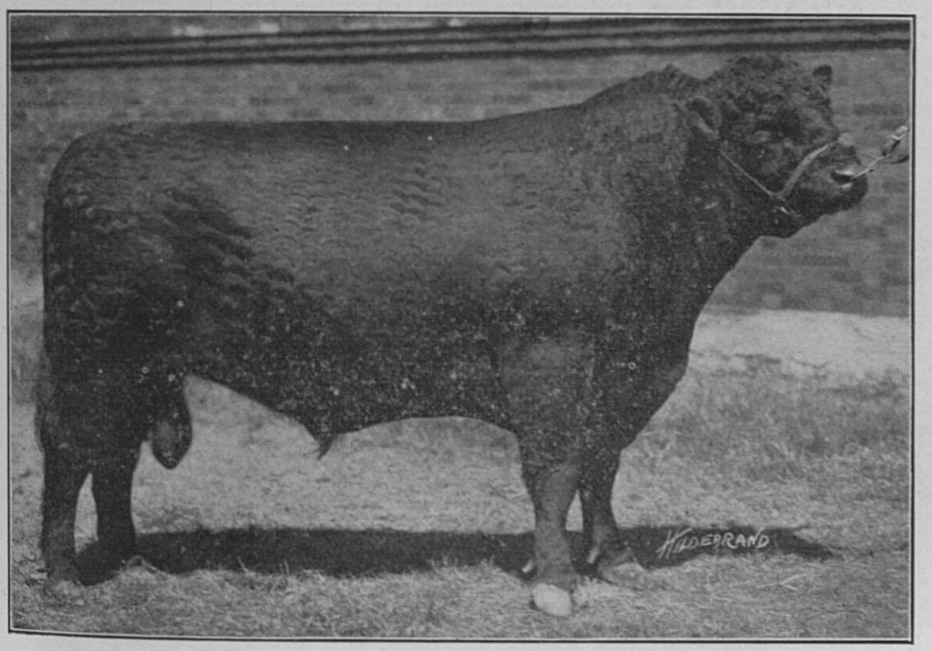


Fig. 12. Galloway Bull. A Grand Champion.

introduced into the United States until 1870 and is bred more in the northwest than in any other section.

*Color.* Black.

*Size.* The Galloway is hardly as large as some of the other beef breeds. Mature bulls weigh about 1,900 pounds and cows 1,300.

*Conformation.* The Galloway is deep of body, well fleshed and produces a high quality of meat but is hardly as broad or blocky as some of the other beef breeds. It is polled or hornless, and has a coat of hair which is long and thick, often being used for a mat, rug, laprobe or making a fur coat. Hardiness is one of its inherited characteristics and strong points.

### Questions

1. Name and locate the different parts of the beef steer.
2. Describe the ideal form of the fat steer.
3. In what respects does "general quality" differ from "quality of flesh?"
4. What is a tie? A patch? A roll?
5. What points do you consider in judging breeding cattle that are not considered in judging fat steers?
6. What is meant by "breed type?"
7. What color may a Shorthorn be? A Hereford? An Angus? A Galloway?
8. Which of the breeds discussed have horns? Which are hornless?
9. What is the average size of the Shorthorn? Hereford? Angus? Galloway?
10. Name the market classes of cattle.

# Part IV.

# DAIRY CATTLE

By

J. J. Hooper and E. M. Prewitt

## INTRODUCTION

Dairy cattle have always been popular in Kentucky. Their numbers have increased rapidly of late. There are now 444,000 dairy cattle in the State, worth thirty-one million dollars. This ranks them among the most important farm animals in Kentucky; in fact, they rank second only to horses in total value. Eighty-two farms out of every hundred have one or more milk cows.

## JUDGING DAIRY CATTLE

*Dairy Type.* Dairy cattle have been selected and bred for centuries for the special purpose of producing large quantities of milk and butter. It is claimed that the people of Holland

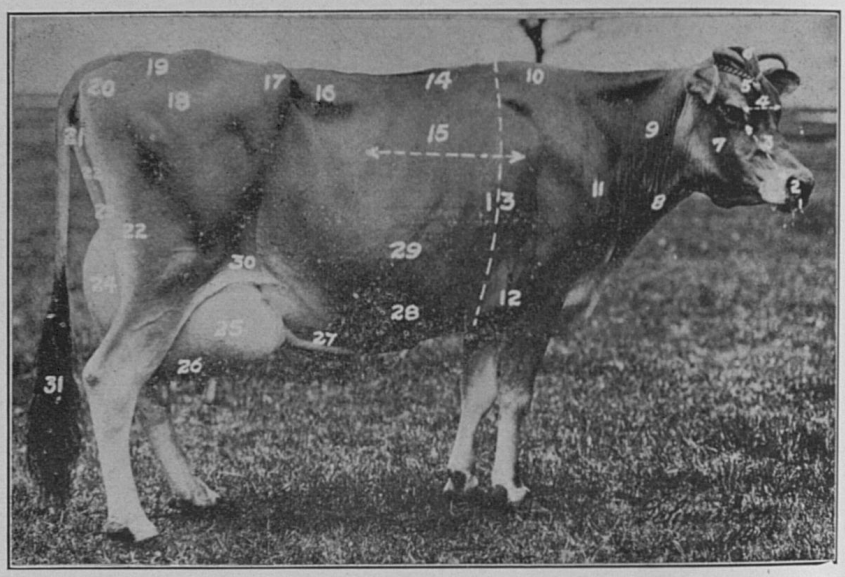


Fig. 13. Points of the Dairy Cow.

1. Mouth.
2. Nostril.
3. Length from eye to nose.
4. Breadth between eyes.
5. Forehead.
6. Poll.
7. Jaws.
8. Windpipe.
9. Neck.
10. Withers.
11. Shoulders.
12. Chest.
13. Heart girth.
14. Back.
15. Ribs.
16. Loin.
17. Hips.
18. Thurls.
19. Tail setting.
20. Pin bones.
21. Escutcheon.
22. Thighs.
23. Rear attachment of udder.
24. Rear udder.
25. Fore udder.
26. Width between teats.
27. Mammary veins.
28. Milk wells.
29. Belly.
30. Flanks.
31. Switch.

SCORE CARD FOR DAIRY COW

| Standard of Excellence. | Perfect Score |
|---|---|
| **A. General Appearance—18 Points.** | |
| **Form,** wedge shaped from front, top and side; straight back; symmetrical balancing of all parts | 6 |
| **Quality,** mellow skin; hair fine; bone refined; secretions yellow and abundant | 6 |
| **Temperament,** active; disposition gentle; lean body | 6 |
| **B. Head and Neck—8 Points.** | |
| **Muzzle,** broad, nostrils large | 1 |
| **Face,** lean, straight | 1 |
| **Eyes,** large, bright, mild | 1 |
| **Forehead,** broad, dished, narrowing at horn base | 1 |
| **Horns,** of fine texture and proper shape for breed | 1 |
| **Ears,** medium size, well set, fine | 1 |
| **Neck,** long, lean, light dewlap | 2 |
| **C. Forequarters—9 Points.** | |
| **Withers,** thin and lean, not depressed thru crops | 3 |
| **Shoulders,** light, and oblique | 4 |
| **Legs,** short, straight, bone fine, feet well placed and of good size and texture | 2 |
| **D. Body—21 Points.** | |
| **Chest,** deep and wide | 6 |
| **Back,** lean, strong, straight | 4 |
| **Loin,** wedge shaped, broad, flat | 4 |
| **Ribs,** deep, broad, widest at lower part of barrel, sprung backward | 6 |
| **Flanks,** thin, deep | 1 |
| **E. Hindquarters—14 Points.** | |
| **Hips,** broad, level with back | 1 |
| **Rump,** long, horizontal, pin bones high and wide apart | 6 |
| **Tail,** bone fine, with good switch | 1 |
| **Thighs,** thin, incurving, long, wide apart | 4 |
| **Legs,** short, hocks wide apart and straight, bone of proper size; feet well placed and of good size and shape | 2 |
| **F. Mammary System—30 Points.** | |
| **Udder, form:** large and long, attached high behind and far forward, quarters uniform, not grooved, level sole | 10 |
| **Udder, quality:** mellow and elastic, hair fine and skin soft | 10 |
| **Teats,** of convenient size, wide apart and squarely placed | 4 |
| **Milk veins,** large, long, tortuous, branching | 4 |
| **Milk wells,** large and numerous | 2 |
| Total | 100 |

Name of cow .....

Weight.....; Age.....; Breed.....

Production .....; Color.....

have kept dairy cattle for a thousand years, and the foundation stock that formed the Jersey and Guernsey breeds was taken to the Channel Islands centuries ago. As a result of this long

continued selection for milk production, dairy cattle have assumed a definite type that is quite distinct from that of beef animals.

The dairy type presents a striking contrast to that of meat producing animals. This is natural when the peculiar nature of the work performed is considered. In all other food-producing animals the effect of feed consumption is cumulative, the digested portion of the feed being stored in the body of the animal. A round, thick body and phlegmatic temperment are conducive to production of body fat while the looser, more triangular conformation of dairy cattle goes with the nervous temperament requisite in milk producing animals. Under the heavy strain of a large milk flow every organ of the body must work regularly and strongly. The wedge shape of the dairy cow is significant in its indication of capacity, mammary development and nerve force.

*Wedges of Dairy Animals.* The dairy cow exhibits three well defined wedges described as follows: (1) As seen from the side, a gradual deepening of the barrel from front to rear. (2) A widening of the body from chest to hips, as viewed from the top; and (3) A widening from the top of the withers and back toward the chest floor and the bottom of the barrel, as viewed from over the back. A cow presenting these three wedges possesses good dairy type because the wedges imply a large heart-girth and barrel, with plenty of room for heart and lungs, and a large feeding capacity. Also the wedges produce width in the rear quarters, which supplies sufficient room for a capacious udder. A leanness thruout denotes ability to produce large quantities of milk from a minimum quantity of feed.

*Points in Detail.* The head of a dairy animal should be lean and refined, broad of muzzle, large of nostrils, moderately short and broad with some dish of face. A broad forehead and large, prominent eyes are desirable. The ears should be fine, thin and held up with vigor. The horns should be fine in texture and waxy. A yellow color of inner skin of ear and of horn are good indications.

The neck of a cow should be long and thin. In the case of bulls the neck is rounder, carries a crest and the head and neck are masculine in appearance, but not coarse. A short,

thick, deep neck, resembling that of a buffalo, is objectionable in the extreme.

The shoulders should blend smoothly with the neck and body. The withers must be sharp and lean.

The breast of the dairy animal is not as heavy as that of beef animals, but should be deep and broad.

The chest should be deep and wide at the bottom, to provide ample room for the heart and lungs. The ribs should spring out strongly behind the shoulders, to give plenty of width of body, capacity of chest and smoothness just back of the shoulders.

The front legs must be straight when viewed from side or front. Knock-knees or legs too close together, indicate a narrow chest and weak constitution.

The back of the dairy animal is of especial importance. A straight back is very desirable. A swayed back is objectionable. Some breeders prefer an open, lean back, while others prefer a smooth back line, claiming that the latter is stronger.

The ribs should spring out broadly from the back bone and carry down into a deep barrel. A flat, narrow cow is a poor feeder and inefficient producer. The ribs should be wide apart, strong and sprung backward and downward.

The hips are prominent in dairy cows and bulls. Broad hips and thurls correlate with a broad, open space between the thighs, thus providing plenty of room for the udder.

The rump is a very important part of the animal, for the shape of the rump correlates closely with the shape of the udder. The rump should be long to supply room for a long udder attachment underneath. The rump should be level, as this insures a level, flat-soled udder. The rump should be wide, as width of hips, thurls and pin bones insures a wide udder.

The thighs of dairy cattle are thin and in-curving. Thick, beefy thighs are undesirable.

The hocks must be carried straight. When too close together (cow hocked) they squeeze the udder, and when too crooked, with the feet placed too far under the body (sickle hocked) they are weak and unsightly.

The hind legs should be squarely placed under the body. The tail is unimportant, except as a protection against flies.

It should be long and provided with a good switch. The tail setting should be smooth, placed at the end of body, and on a line with the back.

The udder deserves especial consideration. In our score card we have devoted twenty points out of a hundred to the udder alone, and ten points more to milk veins, wells and teats. The udder should be shapely, and of fine quality. In form it should be broad, deep and long, extending well forward under the barrel and high up in the twist behind. The bottom of the udder, or sole, should be long and flat. The teats must be placed well apart and should hang straight downward. The quality of the udder is best indicated when it is empty. When the milk is withdrawn, the udder should fold up like a glove. When dry, the size of the udder may be determined by stretching it from front to rear. If the udder retains its size and shape after being milked out, it is meaty, and not of desirable quality. Frequently the udder is smaller in front, with the front teats elevated above the rear ones, or close to the rear ones; this is objectionable. Small udders are undesirable because they are found on cows that are small producers of milk.

The teats should be large enough to make easy milking possible. Some breeds, and some cows of all breeds, have small teats, while some have ugly, large teats. The teats should be placed on the four corners of the udder.

The milk veins that ramify around under the barrel, and that carry the blood from the udder back toward the heart, should be large, branching and tortuous, and should enter the chest floor thru several large milk wells. Small veins on the udder are desirable. Small veins will be found on heifers and on bulls, and miniature teats, known as ''rundimentaries'' are found on bulls in front of the scrotum. They should be a half inch or more in length and placed forward, off the scrotum or purse. It is said they indicate the size and placement of the teats on the udders of heifers sired by the bull. In the twist of cows and bulls will be found the escutcheon. It is shown by the hair turning the wrong way. Formerly some consideration was given to the escutcheon, but now it receives little attention.

*General Appearance, Breed-Type and Quality.* After inspecting each part of the animal the judge should step back a few feet and view the animal form as a whole. There should be a symmetry and a correlation of all the parts. A large head or a shallow body; a weak back or a drooping rump are some of the points that mar the beauty or good general appearance of an animal. Also, when viewing the animal from a distance of a few feet, see if it possesses the characteristics peculiar to the breed to which it belongs. For instance, the Ayrshire should have upturning horns, and ought to be red and white, or brown and white in color. The Holstein should be somewhat larger than the Ayrshire and black and white in color, with incurving, horizontal horns that are shorter than those of the Ayrshire. The Jersey should have a more refined, more incurving horn than either of the above breeds, should be smaller in size and more refined in bone, skin and hair, and of a fawn color. The Guernsey is larger than the Jersey and the horns, nose and feet are yellow, whereas they are dark in Jerseys. All these are breed characteristics and judges pay attention to all the characteristics that are peculiar to the breed that is being judged.

*Quality.* The dairy animal should show refinement of hair, skin and bone. Animals that show quality are found to be the most productive, profitable and beautiful. The skin should be mellow and pliable, thinner than with beef cattle, with shorter hair. The skin should be mellow and oily and show a yellow, oily secretion, conspicuous at the ears, between the thighs, about the udder and the scrotum, and at the end of the tail bone.

With this true balancing of all parts, fidelity to breed type, and a proper degree of quality, the animal should exhibit in addition a stylish appearance. The head and ears should be held up alertly, and the whole attitude should be stylish and attractive.

*Major Points to Consider in a Good Dairy Cow.* The cardinal points of a good dairy cow may be summed up as follows: She should have a broad forehead, large eyes and broad muzzle; the withers should be sharp, the back straight and the rump level; the loin should be broad and smooth, and the hips

wide apart; the chest and barrel must be deep and wide and the thighs thin and incurved; the cow should be lean and angular.

The udder is especially important. It should have size and should hang forward under the barrel and high up in the twist behind. The udder should be level on its sole or floor, and the teats should be placed wide apart. The udder should not be grooved underneath and, when milked out, should fold up like a glove. Many large udders are full of meat and when the milk is drawn from them they retain their size and shape. Such udders are not found on the best cows. It is especially important that the udder should be as large in front as it is behind. Many cows in Kentucky are deficient in fore udder. The milk veins under the body should be large and tortuous, and enter the body thru one or more large openings or milk wells.

When walking, the cow should carry her feet and legs wide apart, thus denoting great width of body. This indicates feeding capacity and room for a large udder.

*Minor Points.* The cow should have refinement of hair, skin and bone, and it is well if she holds her head and ears alertly and walks with style and vigor.

*Objectionable Features to be Avoided in the Selection of a Cow.* Avoid a cow that has a narrow heart-girth, shallow body, long legs, small udder and little teats. Also, avoid one that is hard to milk; it is well to milk a cow to determine if she is a free, easy milker.

## Breeds

The breeds of dairy cattle discust here are Holstein-Friesian, Jersey, Guernsey, Ayrshire and Milking Shorthorn.

### Holstein-Friesian

*Native Home.* This breed originated in northern Holland, principally in the province of Friesland. In Holland they are called Dutch Friesians. It is one of the oldest breeds in existence, history recording cattle of this type in Holland 1,000 years ago. The Holtseins are the most numerous breed of dairy cattle in America.

*Color.* The color markings are black and white with a preference for three-fourths white by most breeders. There is no blending of color, as roan is objectionable.

*Size.* Cows, 1,200 to 1,500 pounds; bulls, 1,800 to 2,200.

*Dairy Production.* The cows produce larger quantities of milk than any other breed, with a comparatively low butter fat test, averaging 3.3 per cent. The highest production of milk for a year is held by this breed, with 37,384 pounds, and the best record of butter fat is 1,305 pounds for the same period.

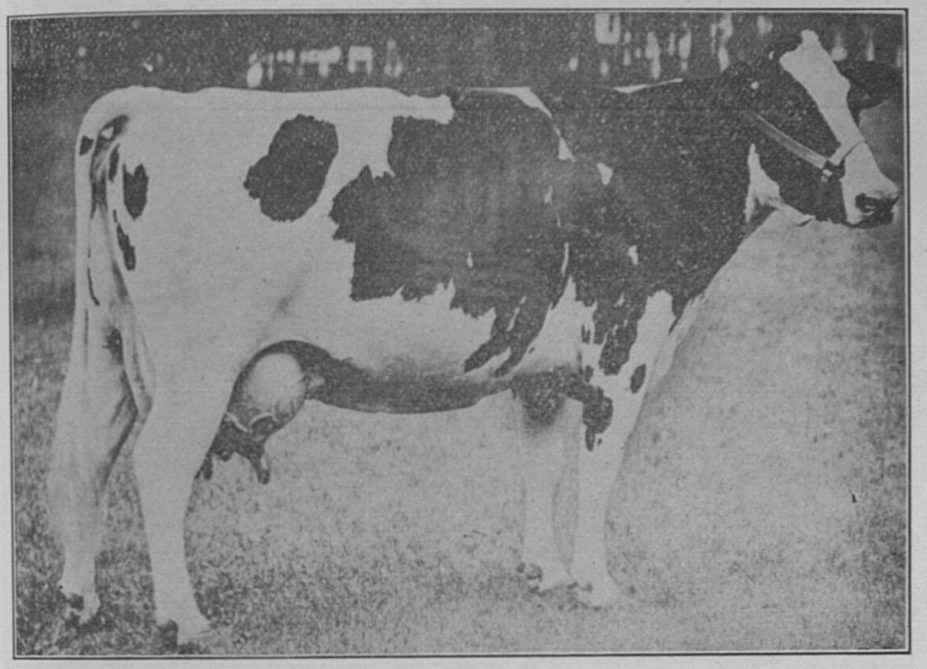

Fig. 14. Holstein-Friesian Cow.

The average of the best ten milk and butter records for the breed is 30,658 pounds of milk and 1,102 pounds of butter fat.

*Strong Points.* The chief merits of the breed are large milk production, strong constitution, large size and strong calves. The calves can be vealed readily, as many of them weigh 90 pounds at birth and gain rapily in weight.

*Criticisms.* The outstanding defect of the breed is the low butter fat content of the milk. The heifers do not reach maturity as rapidly as those of some other dairy breeds.

JERSEY

*Native Home.* Jersey cattle came from the small, beautiful Island of Jersey, situated fourteen miles from the coast of France, in the English Channel, where they have been bred for over a hundred years.

*Color.* The color varies from a light shade of fawn to almost black. White spots are not objectionable to fanciers of the breed.

*Size.* Cows, 700 to 1,000 pounds; bulls, 1,200 to 1,500

*Dairy Production.* Milk from Jerseys excels in richness, the average being 5.2 per cent of butter fat, and the milk production from good cows approximates 7,000 pounds annually.

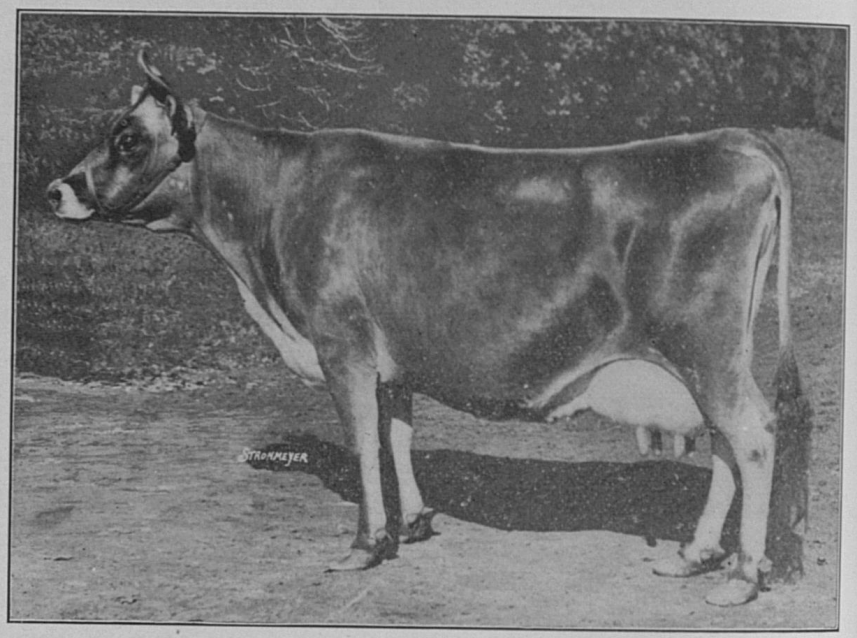

Fig. 15. Jersey Cow.

The largest milk record is 18,743 pounds of milk a year, and the largest fat record is 1,040 pounds in a year; the highest ten records average 16,802 pounds of milk and 983 pounds of butter fat.

*Strong Points.* The most commendable points of the Jersey breed are rich milk, persistent milk production and docility of temperament of cows. Good Jersey cows combine in the highest

degree points of conformation desired in dairy animals. They have fine wedge-shaped bodies, deep barrels, shapely udders and a leanness that betokens excellence at the pail. The calves come to maturity earlier than with other breeds and the cows are noted for their ability to produce calves for a long number of years.

*Criticisms.* The weak points include small size of cows and calves and a frequent deficiency of front udder.

### Guernsey

*Native Home.* The breed originated on Guernsey Isle, one of the group of Channel Islands situated twenty-eight miles from the coast of France. As the two breeds have developt under


Fig. 16. Guernsey Cow.

the same environment it is not strange that Guernseys and Jerseys resemble each other in many points.

*Color.* The color is yellow or red fawn, ordinarily the latter, with white markings. The Guernsey usually shows some white, with buff nose, a light tongue and yellow horns and feet. The secretions about the body and on the end of the tail are yellow and abundant.

*Size.* Cows, 800 to 1,200 pounds; bulls, 1,500 to 1,800.

*Dairy Production.* As an average, the best cows produce from 7,000 to 9,000 pounds of milk and from 350 to 450 pounds of butter fat, the milk testing 5 per cent. The highest testing cow of the breed has produced 1,098 pounds of butter fat in a year; the average of the best ten records is 19,835 pounds of milk and 997 pounds of butter fat.

*Strong Points.* The cattle are vigorous, they produce a rich yellow milk; the temperament of the breed is good.

*Criticisms.* They are often not true to type, many individuals having defects of form and some coarseness. Heifers of this breed do not mature as rapidly as Jerseys.

### Ayrshire

*Native Home.* The native home of Ayrshire cattle is Ayrshire, southwestern Scotland. The country is rugged and hilly, which no doubt accounts for the vigor of the breed.

*Color.* The common color is white with red or cherry-brown splashes.

*Size.* Cows, 1,000 to 1,200 pounds; bulls, 1,500 to 2,000.

*Dairy Production.* Good individuals of this breed average 8,000 pounds of milk annually, testing 4 per cent. The butter

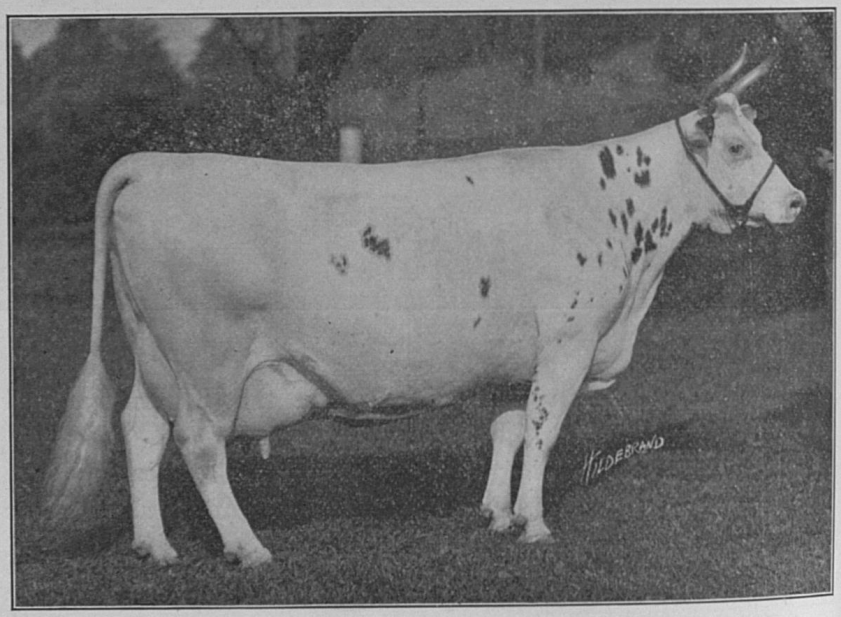


**Fig. 17. Ayrshire Cow.**

fat gobules in the milk are small and consequently the cream does not rise rapidly on this milk, which is a valuable property in cheese making. The largest Ayrshire record is 22,596 pounds of milk and 955 pounds of butter fat in a year, while the ten highest tests average 21,342 pounds of milk and 847 pounds of butter fat.

*Strong Points.* Vigor and size are the chief points of advantage of the breed. The small fat globules recommend the Ayrshire to the cheese maker and for the same reason the milk is used frequently for baby feeding. Good individuals of the breed possess excellent conformation, being especially noted for symmetrical udders and uniformity of type.

*Criticisms.* They mature somewhat slower than some other breeds and their milk is not as rich as the Guernsey or Jersey. Often there is a tendency toward beefiness.

### Milking Shorthorn

*Native Home.* The native home of the Shorthorn is northeastern England in the counties of Durham, Yorkshire and

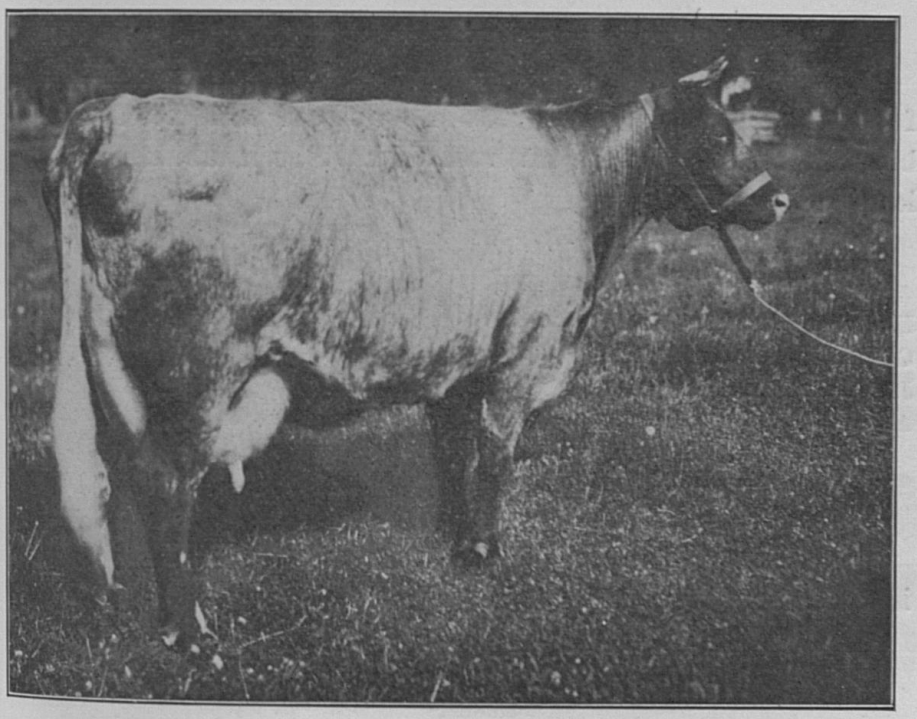

Fig. 18. Milking Shorthorn Cow.

Northumberland. From this region the cattle have been taken to almost every country in the world.

*Color.* Typical colors are red, white or roan or a combination of the three.

*Size.* Cows, 1,500 to 1,800 pounds; bulls, 1,700 to 2,500.

*Dairy Production.* Milk and butter records of this breed are not numerous, but the best cows will probably average 5,000 to 6,000 pounds of milk a year with from 3.6 to 4 per cent butter fat. After calving they lose flesh rapidly and when dry they fatten quickly.

*Strong Points.* On the general farm, where dairying is not the main feature, but a profitable side line, dual purpose cattle are frequently kept. They produce calves that grow into good steers and the cows produce considerable milk.

*Criticisms.* While the dual purpose cow undoubtedly has a place on some farms, it must be borne in mind that the greatest excellence in milk and beef production cannot be combined in the same strain.

## Official Records For All Breeds

Each breed has its official book in which milk and butter fat tests are entered. Hundreds of cows have been tested in each breed, and lately all the test records have been tabulated as follows:

| Breed | Number of records | Pounds of milk | Pounds of fat | Per cent of fat |
|---|---|---|---|---|
| Holstein | 4,260 | 14,741 | 505 | 3.42 |
| Guernsey | 7,501 | 8,987 | 449 | 5.00 |
| Jersey | 10,091 | 7,865 | 422 | 5.37 |
| Ayrshire | 2,986 | 9,581 | 379 | 3.96 |

## Questions

1. How many dairy cattle are owned in the State? What is their total value?

2. How does a dairy cow differ from a beef cow in form?

3. What are the most important points to consider in judging dairy cattle? What are some of the minor points?

4. Where did the Jersey breed originate? Also the Guernsey, Holstein and Ayrshire.

5. What is the largest dairy breed, and which is the smallest?

6. What is the largest milk and butter record for a cow for a year?

7. Which breed produces the most milk, and which yields the largest quantity of butter?

8. Which breed produces the richest milk?

9. Name some of the important breed characteristics of each breed of dairy cattle.

10. In your opinion which breed is best adapted to Kentucky?

# Part V.

# SHEEP

By

L. J. Horlacher

## JUDGING SHEEP

Skill in judging is attained only after constant practis. The judging of sheep differs from that of other animals in that the hand must be used almost exclusively to determine the details of form and condition. Before the sheep is handled view it from the front to study the make-up of the head, the width and depth of brisket and the length, straightness and placing of the front legs. From the side study the size, lines, lowset-


Fig. 19. Points of the Sheep.

1. Muzzle.
2. Mouth.
3. Nostril.
4. Lips.
5. Nose.
6. Face.
7. Forehead.
8. Eye.
9. Ear.
10. Neck.
11. Shoulder vein.
12. Top of shoulder.
13. Shoulder.
14. Chest.
15. Brisket.
16. Fore leg.
17. Back.
18. Loin.
19. Hip.
20. Ribs or side.
21. Fore flank.
22. Belly.
23. Flank.
24. Rump.
25. Leg of mutton or thigh.
26. Crops.
27. Dock or tail.
28. Twist.
29. Hind leg.

ness, length and style. From the rear note the width and evenness of body, development of hindquarters and set of legs.

*Score Card.* The score cards on pages 59 and 60 and figures 19 and 20 show the points to be considered in judging and where those points are located. A perfect sheep should score 100 points. The student should use the scorecard on several sheep in order to become thoroly familiar with the loca-


Fig. 20. Points of the Sheep.

tion of the different parts and to learn the terms used in describing them.

*Handling.* The proper way to handle a sheep is to keep the fingers together and lay them flat on the animal, except when it is necessary to grasp the parts, as in feeling the leg of mutton. The sheep should not be pounded around nor should the fingers be stuck into the wool. The sheep may be handled, beginning

either at the front or the rear. Figures 21, 22, 23, 24, 25, 26, 27 and 28 show the proper methods of going over the different parts.

*Age.* The age of a sheep may be estimated by the teeth. Sheep have eight permanent front teeth (nippers or incisors) in the lower jaw, but none in the upper. Permanent teeth are

Fig. 21. The neck should be full and short, blending smoothly into the head and shoulders.

those which replace the baby or milk-teeth. The milk-teeth are narrow and white, while the permanent teeth are larger and broader, widening out toward the top. The permanent teeth take the place of the temporary in regular order by pairs as the sheep grows older. The first pair, or middle teeth, replace the corresponding pair of milk-teeth when the sheep is about

SCORE CARD FOR MUTTON SHEEP—FAT

| Standard of Excellence. | Perfect Score |
|---|---|
| **A. General Appearance—34 Points.** | |
| **Weight**.....lbs., according to age | 4 |
| **Form,** straight top and underline, deep, broad, lowest, compact, symmetrical | 9 |
| **Quality,** wool fine, bone fine but strong, features refined, hair fine, pelt light | 9 |
| **Condition,** deep, even covering of firm flesh, especially in region of valuable cuts; note thickness of dock, fullness of purse and flank | 12 |
| **B. Head and Neck—7 Points.** | |
| **Face,** short, features clean-cut | 1 |
| **Eyes,** full, bright, clear | 1 |
| **Muzzle,** mouth and nostrils large, lips thin | 1 |
| **Forehead,** broad, full | 1 |
| **Ears,** fine texture, well carried | 1 |
| **Neck,** short, thick at junction with shoulder and neatly tapering to head | 2 |
| **C. Forequarters—10 Points.** | |
| **Shoulders,** well covered, compact on top, smoothly joined with the neck and body | 8 |
| **Brisket,** thick and prominent, rounding in outline | 1 |
| **Legs,** straight, short, wide apart, strong, shank smooth and fine | 1 |
| **D. Body—25 Points.** | |
| **Chest,** wide, deep, full | 4 |
| **Back,** straight, broad, thickly fleshed | 8 |
| **Loin,** broad, thick, firm | 8 |
| **Ribs,** well sprung, long, thickly fleshed | 4 |
| **Flanks,** low, thick, making straight underline | 1 |
| **E. Hindquarters—15 Points.** | |
| **Hips,** smoothly covered, level, far apart | 1 |
| **Rump,** level, long, wide to dock, thick at dock | 5 |
| **Thighs,** full, deep, wide | 5 |
| **Twist,** plump, deep, firm | 3 |
| **Legs,** straight, short, strong, shank smooth | 1 |
| **F. Wool—9 Points.** | |
| **Quality,** crimp distinct and even thruout fleece | 3 |
| **Quantity,** long, dense; even in density and length | 3 |
| **Condition,** slight amount of yolk; foreign material not excessive | 3 |
| Total | 100 |

## SCORE CARD FOR MUTTON SHEEP—BREEDING

| Standard of Excellence | Perfect Score |
|---|---|
| **A. General Appearance—46 Points.** | |
| **Weight**.....lbs., according to age and breed | 4 |
| **Form,** straight top and underline, deep, broad, lowset, compact, symmetrical | 12 |
| **Quality,** wool and hair fine, bone fine but strong, features refined but not delicate | 10 |
| **Condition,** deep covering of firm flesh, not excessively fat, fleece elastic, pink skin, thrifty apperaance | 4 |
| **Constitution,** capacious chest, brisket well developed, bone strong, flanks deep, movement strong and vigorous | 12 |
| **Disposition,** quiet, but not sluggish | 2 |
| **Color,** according to breed | 2 |
| **B. Head and Neck—7 Points.** | |
| **Face,** short, according to breed | 1 |
| **Eyes,** full, bright, clear | 1 |
| **Muzzle,** mouth and nostrils large, lips thin | 1 |
| **Forehead,** broad, full | 1 |
| **Ears,** fine texture, size and form according to breed | 1 |
| **Neck,** short, thick, neatly tapering to head | 2 |
| **C. Forequarters—6 Points.** | |
| **Shoulder,** compact, covered with flesh, smoothly joined with neck and body | 3 |
| **Brisket,** well developed, prominent | 1 |
| **Legs,** straight, short, set well apart, feet squarely placed | 2 |
| **D. Body—14 Points.** | |
| **Back,** straight, broad, thickly and evenly fleshed | 5 |
| **Loin,** broad, thick, firm | 5 |
| **Ribs,** well sprung, long, thickly fleshed | 3 |
| **Flanks,** low, making srtaight underline | 1 |
| **E. Hindquarters—14 Points.** | |
| **Hips,** smoothly covered, level, far apart | 1 |
| **Rump,** level, long, wide and even in width | 3 |
| **Thighs,** full, well fleshed to hock | 3 |
| **Twist,** plump, deep, firm | 4 |
| **Legs,** straight, short, set well part, bones strong and of good quality, pasterns upright, feet squarely placed | 3 |
| **F. Wool—13 Points.** | |
| **Quality,** structure and color true to breed | 5 |
| **Quantity,** long dense, even | 4 |
| **Condition,** strong, bright, clean, small amount of yolk | 4 |
| Total | 100 |

one year old. The next pair (one on each side of the central pair) appear at two years, the third pair at three years, and the fourth pair at four years. At eight or nine years the teeth begin to fall out, and the sheep is called "broken mouthed." To observe the teeth, hold the sheep with one hand under the jaw and press down the lower lip with the thumb and forefinger.

*Weight.* Lambs weighing 80 pounds and prime in quality and condition sell highest on the market. Mature wethers

Fig. 22. The chest should be deep, with a wide chest floor. To determine this place one hand on the top of the shoulders and the other on the chest floor between the front legs.

should weigh 140 pounds or more. About 80 per cent of all sheep marketed are lambs. The lamb age is the most desirable age for butcher sheep due to the fact that it is the most profit-

able for the producer and is in greatest demand by the consumer.

*Body Conformation.* The mutton sheep should be low set, blocky, compact, smooth, and symmetrical in build. A short, broad, squarely built head, wide between the eyes and ears, usually indicates a thick, blocky body form. The neck should be short, blending smoothly into the head and into the shoulders.

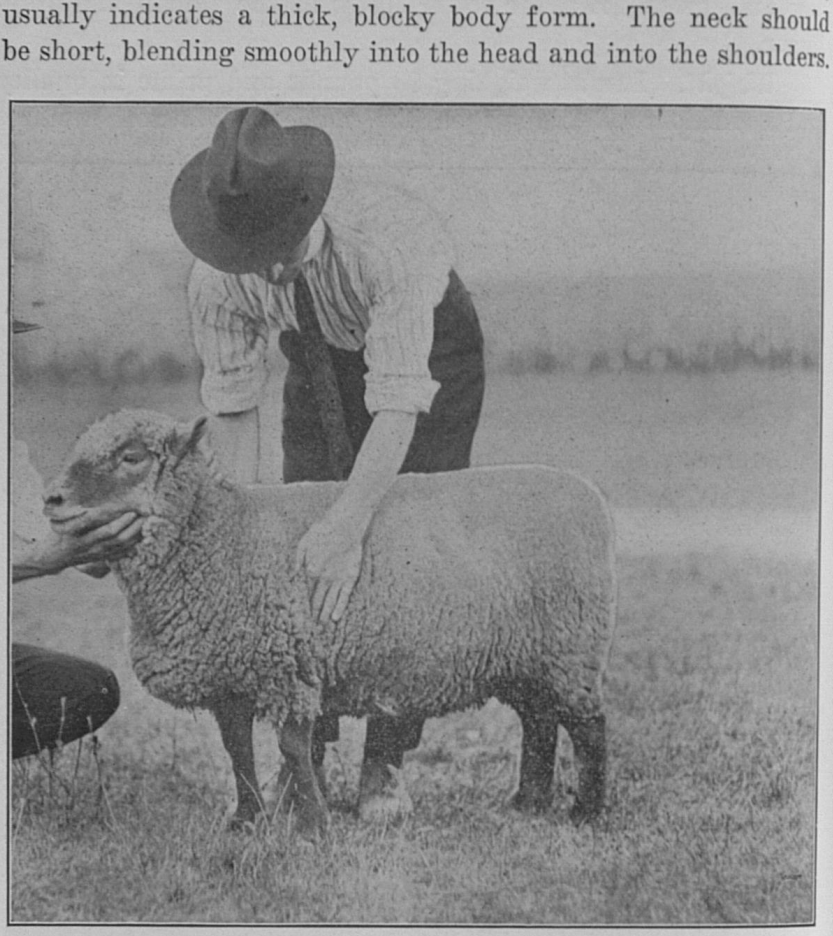

Fig. 23. A wide, full chest, smooth and thick covering over the shoulders, full crops, and large heart girth, are essential.

The shoulders should be compact, closely knit on top, and well covered with flesh. The heart girth should be full, the back strong and wide with a full, wide, deep spring of rib, thus giving a capacious chest and middle. The loin should be wide and thick. The rump should be long, wide and level, letting down

into a deep, plump, full leg of mutton. The legs should be straight and strong.

*Condition.* Condition is thickness of fleshing. It is indicated by the thickness of the dock, fullness of cod, and thickness of fleshing over the back, loin, ribs and shoulders. To determine the thickness of fleshing the sheep must be felt or

Fig. 24. Feel the top of the shoulder for compactness. Move the hand back in a flat position, noting the strength and straightness of top line to end of body, and evenness, thickness and firmness of fleshing. In the fat sheep there is a slight groove down the middle of the back.

"handled" with the hands. In the ideal fat sheep the flesh is "as hard as a board" and there is a slight groove down the middle of the back. The flesh should extend well down over the sides without softness.

There are five reasons why the butcher demands fat animals: (1) Other things being equal, the fat animal will dress a higher proportion of edible meat to offal than will a half fat animal; (2) fat adds to the appearance of the meat; (3) fat carcasses will lose less in weight when cooling out in the refrigerator and in cooking; (4) the keeping and curing qualities of the fat carcass excel those of the thin carcass; (5) a considerable amount of fat distributed thru the lean makes the meat more tender, more juicy and of a better flavor.

Fig. 25. The loin should be wide, thick and firmly fleshed. If the backbone is prominent the loin is thinly fleshed.

*Quality.* Quality is indicated by a neat, well-turned head and ear; fine, dense bone of medium size, soft, silky hair, a mellow skin and a smooth, even covering of flesh. Quality is

important because the sheep possessing quality usually grows and fattens on less feed and will dress out with less waste than will a coarse sheep. The pelt, which is the skin with the wool on, should be light. The quality of the flesh and skin should be determined when the sheep is examined for condition.

*Wool.* The quantity of wool is determined by its length, density and evenness of covering over the body. A fleece with quality should be fine, pure and soft, with a close, regular

Fig. 26. At the thighs note the degree to which the width is carried to the end of the body, and the depth and firmness of flesh on the outside of the leg of mutton.

crimp, and should be of uniform quality all over. The shortest fleeces usually show the most quality. By crimp is meant the wave in the fiber.

A fleece in good condition should be clear and free from harshness and foreign matter, such as dirt, burs and chaff. Too much yolk or grease is not desirable, but enough should be present to give the fleece a soft texture and a bright luster.

*Undesirable Features.* (a) Too great weight is associated with coarseness and low dressing percentage. The cuts are too large for the retail meat trade. (b) A flat-ribbed, narrow-chested, drooping-rumped, upstanding individual with peaked hindquarters carries a large amount of waste in proportion to the valuable cuts. Openness at the top of the shoulder, roughness and angularity invariably go with bareness of shoulder, back and loin, a thin leg of mutton and an excess of bone. Narrow shoulders and long, crooked legs indicate low vitality and poor fleshing qualities. (c) A long, narrow head with a pinched muzzle indicates weakness of constitution. A thin neck and narrow head go with a slender body. (d) Weak, short, thin loins are found in angular, upstanding individuals, lacking depth of flesh. (e) Drooping rumps, thin-fleshed legs and a high, undevelopt twist greatly reduce the value of the carcass. The hindquarters represent 40 per cent of the value of the carcass to the butcher. (f) Coarseness; a thick, wrinkly skin

Fig. 27. Grasp the leg of mutton with both hands well up. Note thickness, plumpness and firmness of fleshing, and lowness and breadth of twist.

covered with coarse wool; a large, open frame with heavy bone and rough joints, and an uneven distribution of flesh add to the waste and detract from the value of the animal.

*Comparative Judging.* This is the placing or rating of two or more animals according to merit. It is a matter of comparison. Each animal must be inspected separately, each of

Fig. 28. Open the fleece on the shoulder to examine the densest and finest quality of wool. The medium quality wool is found midway along the side, and the poorest and most open wool on the thighs. Part the wool with hands flat. Note also color and condition of skin.

the main points of every animal compared and balanced separately and collectively, until the animal is selected which most nearly fulfills all the requirements of that class. This animal is the first prize winner, the next best is the second prize winner, and so on.

*Breeding Sheep.* The animal used for breeding must have all the excellence of size, form, quality and condition of the fat sheep and in addition must be strong in constitution, conform to the breed type and show pronounced sex characteristics.

*Constitution.* A sheep with a strong constitution has the general appearance of being very vigorous and thrifty. A large nostril, strong muzzle, full chest, wide spring of rib, wide chest floor, and a capacious body are all indicators of a strong constitution.

Fig. 29. Properly trimmed and blocked for showing. This grade Southdown wether was shown by the University of Kentucky at the 1920 International. He won third in the carcass contest, and dressed out 56.4 per cent.

*Breed Type.* The points usually considered under breed type are color, size, fleece and skin. For example, a Shropshire with a speckled face or a Hampshire that is small like a Southdown is said to be "off type." Breed type is one of the first things to be considered in judging pure bred breeding sheep.

A sheep that has an excellent body form but is lacking in breed type cannot be placed first in its class.

*The ewes should be*: (a) Well grown and rugged; (b) feminine; (c) straight in body lines and showing capacity for feed; (d) sound in mouths and udders; (e) covered with dense, heavy fleeces; (f) from one to four years old; (g) uniform in size and breeding.

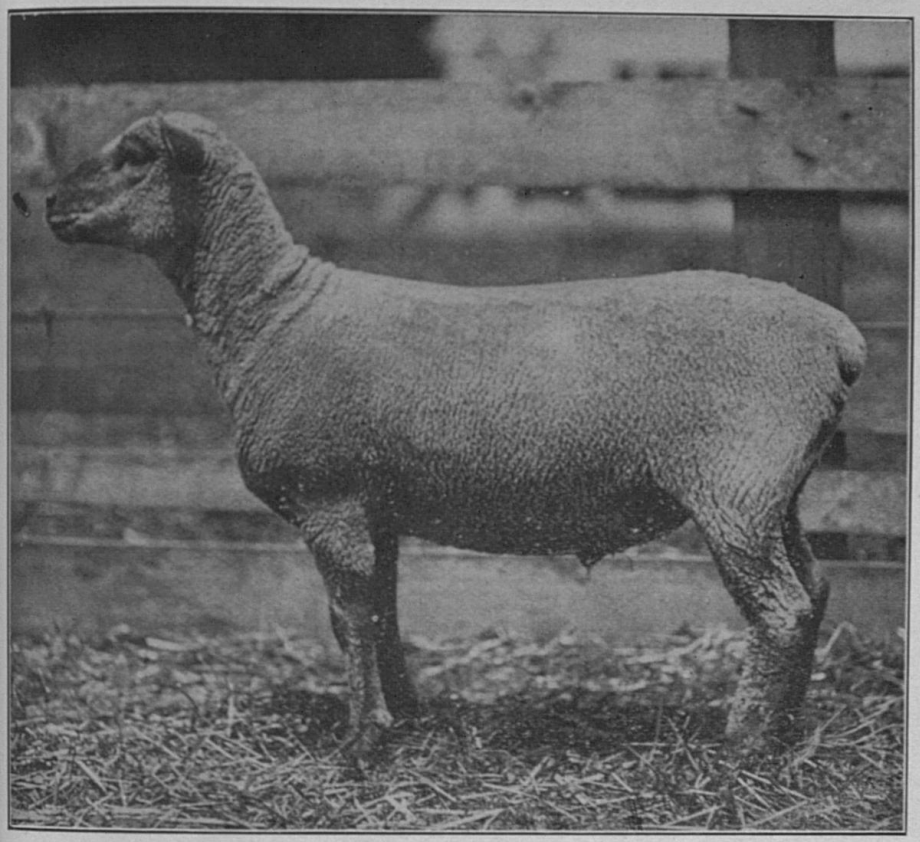

Fig. 30. Southdown wether. After the sheep has been shorn the eye may be used to judge.

*The ram should be*: (a) Strong, active, vigorous and massive, with bold features; (b) from one to three years old; (c) a pure bred of pronounced breed type and characteristics; (d) symmetrical and evenly developt; (e) covered with firm flesh and a dense fleece; (f) strong and straight in his legs.

## Market Classes

Market sheep may be classified as follows:

Fat or mutton (lambs, yearlings, wethers, ewes, bucks or stags.)

Feeder (lambs, yearlings, wethers, ewes.)

Breeding (ewes, bucks.)

Market sheep are all sheep that are sold on the live stock markets.

## Breeds of Sheep

The more common breeds of sheep may be classified according to type as follows:

- Sheep
  - Mutton
    - Medium Wool or Down: Southdown, Shropshire, Hampshire, Oxford, Cheviot, Dorset, Suffolk, Tunis, Romney.
    - Long Wool: Lincoln, Leicester, Cotswold
  - Wool
    - Fine Wool: American Merino, Delaine Merino, Rambouillet

Pictures and descriptions of the breeds most prominent in Kentucky are given in the following pages.

*Two General Types.* The classification divides the breeds of sheep into two general types, according to the purposes for which they are bred. The mutton type is bred primarily for mutton, while the fleece is given only secondary consideration; the wool type is bred primarily for wool, with mutton as a secondary consideration. Consequently, there is a wide difference in the make-up of the two types. The mutton type is square, blocky, and meaty in build, while the wool type is more angular.

The breeds of sheep discust here are: Southdown, Shropshire, Hampshire, Oxford, Cheviot, Cotswold, Rambouillet, Dorset Horn, Suffolk, Romney, Tunis and Corriedale.

### Southdown

*Origin.* The Southdown is one of the oldest of the improved breeds of sheep. Native sheep of Sussex County, England, were bred up and developt by the process of selection.

*Color.* The hair on the face and legs is brownish-gray.

*Size.* Rams, 200 pounds. Ewes, 145 pounds.

*Fleece.* Length 2 inches. Weight 5 to 8 pounds.

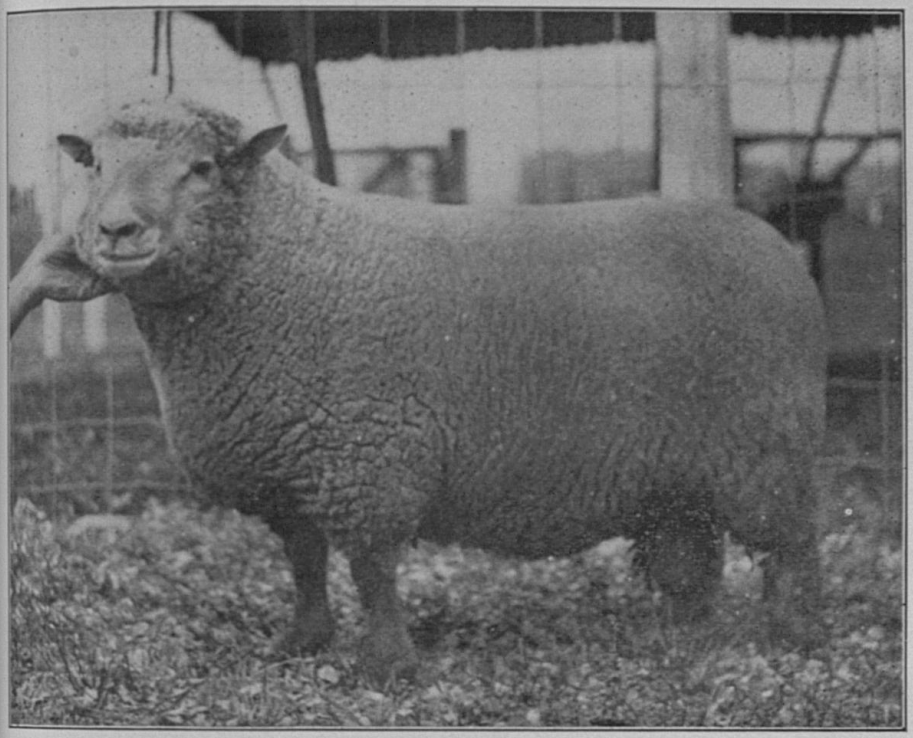

Fig. 31. Southdown Ram. A Grand Champion.
Courtesy American Sheep Breeder.

*Strong Points.* The Southdown is the most ideal in form of the breeds of sheep. It ranks among the first in quality of mutton. It is an excellent fattener and a fair grazing sheep. Its prolificacy is only fair. For crossing and grading the rams are extremely prepotent.

*Criticisms.* The Southdown has been criticized for its small size and light fleece. Horns or evidence of their presence, a dark poll, blue skin and speckled face, ears and legs are disqualifications.

### Shropshire

*Origin.* Shropshire and Staffordshire, in central western England. Native sheep of those two counties were improved by the use of Southdown, Leicester and Cotswold rams.

*Color.* The hair on the face and legs is a deep soft brown.

*Size.* Rams 225 pounds. Ewes 160 pounds.

*Fleece.* Length 2½ to 3 inches. Weight 8 to 10 pounds.

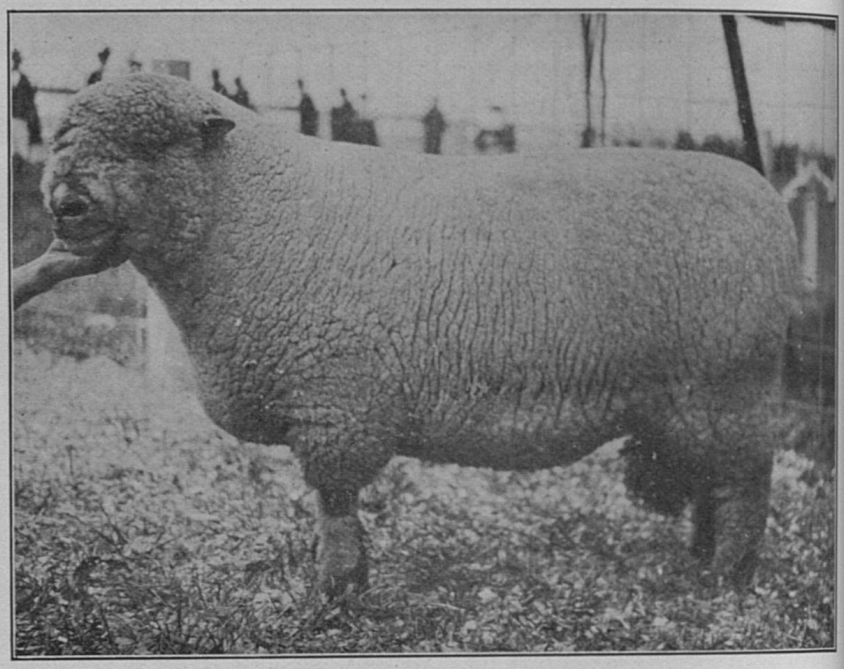

Fig. 32. Shropshire Ram. A Grand Champion.
Courtesy American Sheep Breeder.

*Strong Points.* The Shropshire has been called the "rent-paying sheep" because it combines an excellent mutton form with a heavy fleece of good quality. It ranks near the top in prolificacy, is a good fattener, and a fair grazing sheep. It is well adapted to corn-belt conditions.

*Criticisms.* Dark wool on the head and face are objectionable. Black fibers in the fleece, blue spots on the skin, a rusty brown or faded out brown color of face, spotted face, and horns or evidence of their presence, are disqualifications.

### Hampshire

*Origin.* Native sheep of Wiltshire and Hampshire, England, were improved by the use of Southdown rams.

*Color.* The hair on the face and legs is brown or black.

*Size.* Rams, 275 pounds. Ewes, 200 pounds.

*Fleece.* Length, 2½ inches. Weight, 8 pounds.

*Strong Points.* The Hampshire is noted for its large size and early maturity. They thrive exceedingly well on forage

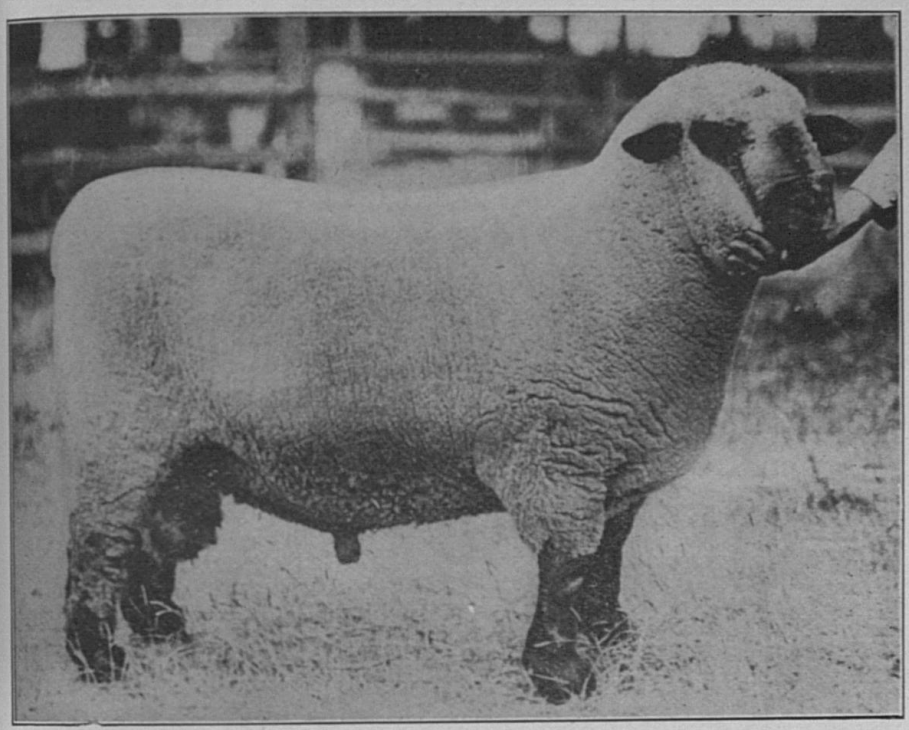

Fig. 33. Hampshire Ram. A Grand Champion.

crops. Lambs eight and nine months old can be made to weigh 200 pounds. The mutton is the finest quality of any of the larger mutton breeds. Hampshire ewes are very prolific.

*Criticisms.* Hampshires are inclined to fall off behind the shoulders. Dark fibers in the fleece and a dark tinge to the head wool are quite common and are very objectionable. A bar of light brown or gray hair across the face, just below the wool cap, is unfavorably regarded in rams. Horns or evidence of their presence amount to a disqualification.

## Oxford

*Origin.* Cotswold rams were bred to Hampshire ewes and the first crosses were then bred to each other. The native home is Oxford County, England.

*Color.* The hair on the face and legs is brown.

*Size.* Rams, 300 pounds. Ewes, 200 pounds.

*Fleece.* Length, 3 to 4 inches. Weight, 10 to 12 pounds.

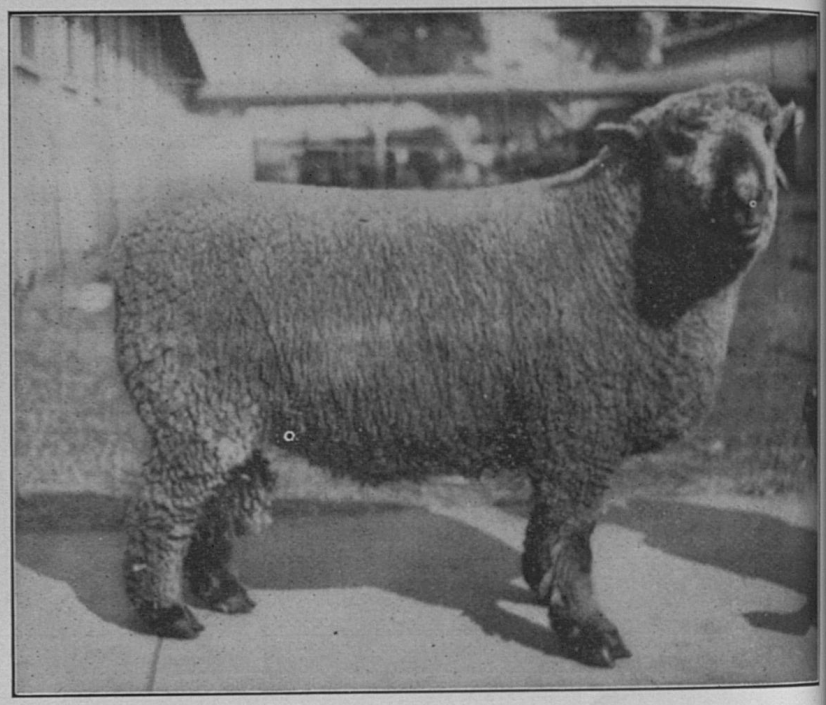

Fig. 34. Oxford Ram. A Grand Champion.
Courtesy American Sheep Breeder.

*Strong Points.* The Oxford is a large sheep, shearing a heavy fleece of good quality. The ewes are prolific and are good milkers. The quality of mutton is fair. They do fairly well on the feed furnished to the average farm flock.

*Criticisms.* Dark wool on the head or body is objectionable. Any evidence of horns is undesirable.

### Cheviot

*Origin.* Native sheep of the Cheviot Hills, the border country betwen England and Scotland, were improved chiefly by selection, after some Lincoln, Leicester, and Black-Faced Highland blood had been infused.

Fig. 35. Cheviot Ram. A Prize Winner.

*Color.* The hair on the face and legs is white. Black spots often occur on the ears and face. The nostril, lips and hoofs are black.

*Size.* Rams, 175 pounds. Ewes, 140 pounds.

*Fleece.* Length, 4 inches. Weight, 6 to 8 pounds.

*Strong Points.* Hardiness is a leading property of the Cheviot. They are excellent grazers and fatten more quickly on grass than in the feed lot. Because of their light weight at

maturity they have an advantage as mutton in the American markets. The lambs are very vigorous and hardy at birth.

*Criticisms.* The Cheviot is later maturing than some of the other breeds. The Scotch type is too sharp in the shoulder. Reddish hairs on the face or legs, smut or black hairs around the nostrils or horns over 1 inch long in rams will disqualify.

### Cotswold

*Origin.* Native sheep of Gloucester, England, were improved by the use of Leicester rams.

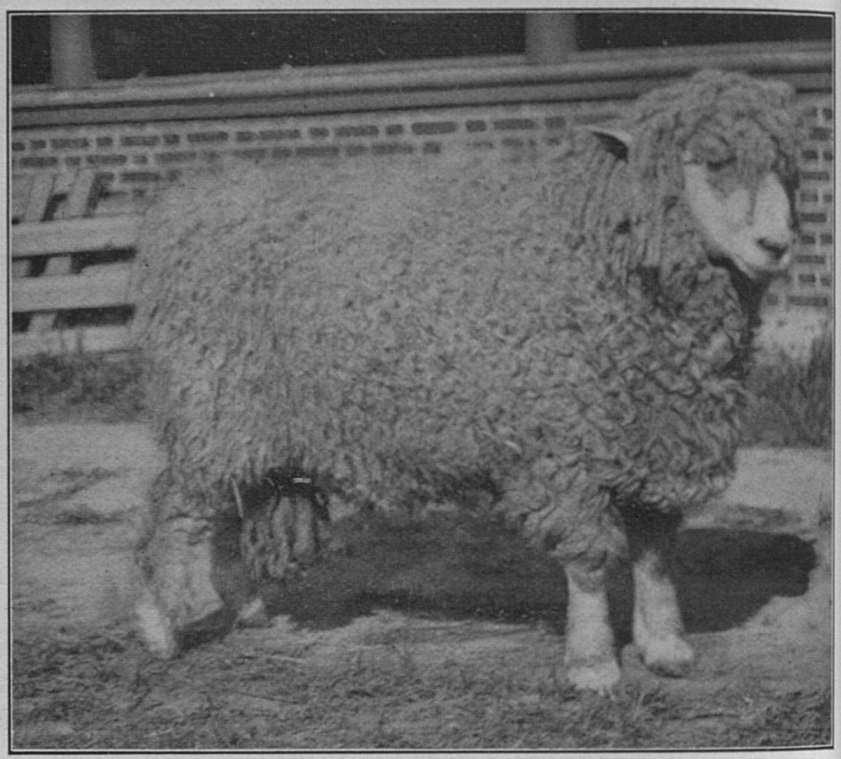

Fig. 36. Cotswold Ram. A Grand Champion.
Courtesy American Sheep Breeder.

*Color.* The hair on the face and legs is grayish or white. Lips and nostrils are black.

*Size.* Rams, 285 pounds. Ewes, 210 pounds.

*Fleece.* Length, 10 to 14 inches. Weight, 10 to 14 pounds. The Cotswold belongs to the long wool group of mutton sheep.

*Strong Points.* The Cotswold does well on short pastures. It is fairly hardy for a large, open-wooled breed.

*Criticisms.* The fleece parts along the spine, allowing cold rains to pentrate to the body, causing colds. The mutton is too fat. Lambs do not become plump and firm at an early age.

### Rambouillet

*Origin.* Spanish Merinos were improved by selection at the French government farm at Rambouillet, France.

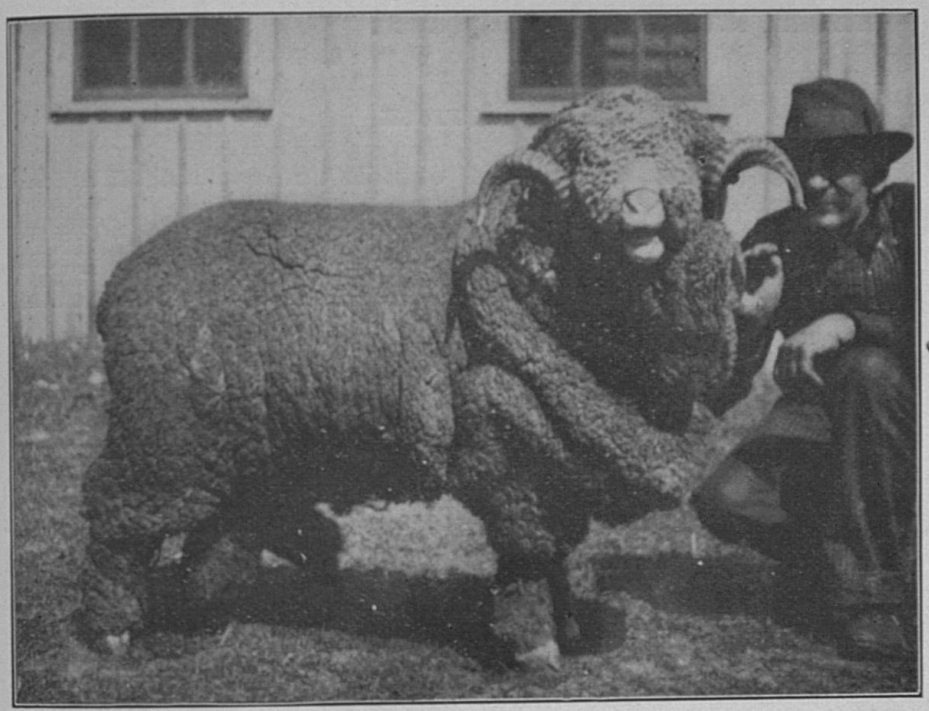

Fig. 37. Rambouillet Ram. A Grand Champion.
Courtesy American Sheep Breeder.

*Color.* The hair on the face, ears and legs is white. The lips, nostrils and feet are white.

*Size.* Rams, 235 pounds. Ewes, 155 pounds.

*Fleece.* Length, 1½ to 3 inches. Weight, 10 to 25 pounds. The Rambouillet is of the fine wool type.

*Strong Points.* The Rambouillet has the best mutton form of any of the fine wool breeds. It is very hardy. The lambs grow rapidly. When crossed with rams of the mutton breeds the ewes produce excellent market lambs.

*Criticisms.* The quality of mutton is poorer than that of the mutton breeds. Some types tend to have too many wrinkles.

### Dorset Horn

The Dorest Horn originated in Dorset and Somerset, England. Both rams and ewes have horns. The face, legs, nostrils, lips and hoofs are white. Mature rams weigh approximately 275 pounds, and ewes 180 to 200 pounds. The fleece is rather open and averages about 7 pounds.

### Suffolk

The Suffolk originated in Suffolk County, England. It is a hornless breed. The head, ears and legs are black and free from wool covering. Mature rams weigh about 250 pounds, ewes 165 pounds. The fleece is much like that of the Hampshire in quality, and weighs about 7 pounds.

### Romney

The Romney originated in Kent, England. It is a large, rugged, low-set, sheep noted for its constitution and strength of bone. The markings are white with black nostrils, lips and hoofs. There is no wool on the face nor on the legs below the knees and hocks. As a rule there is a tuft of wool on the forehead. The fleece is rather long and weighs 10 to 12 pounds.

### Tunis

The American Tunis was established by improving with Southdown rams ewes descended from stock imported from Africa. The color varies from reddish brown to white. The head and legs are bare of wool. The wool is coarse and usually white, tho sometimes gray occurs. The fleeces average 8 to 10 pounds. Rams weigh 150 to 175 pounds, ewes 125 pounds.

### Corriedale

The Corriedale is a new breed which has developt in New Zealand since 1880. Lincoln, Leicester and Romney rams were bred to Merino ewes, and after close culling toward the type desired the half-breds were mated together. This resulted in a breed called the Corriedale.

The Corriedale is a combined wool and mutton sheep. The face, ears and legs are white. The fleeces average 10 to 12 pounds in weight and 3 inches or more in length.

### Questions

1. Classify the breeds of sheep according to type.
2. Draw an outline of a sheep and locate on it all of the 29 points.
3. Name the six main divisions of the score card and give the number of points allowed for each.
4. In what position would you keep your fingers when handling a sheep?
5. Explain fully how to tell the age of a sheep by the teeth.
6. Name six undesirable features in the fat sheep and tell why each is undesirable.
7. What three points do you consider in judging breeding sheep that you do not consider in judging fat sheep?
8. On what part of the body is the densest fleece found? The coarsest?
9. What color is the Southdown? Shropshire? Hampshire? Oxford? Cheviot? Dorset? Tunis? Romney? Corriedale?
10. Give the approximate length and weight of the fleece of the Southdown; Shropshire; Hampshire; Oxford; Cheviot; Cotswold; Rambouillet; Corriedale.

# Part VI.

# HOGS

By

O. G. Hankins

## JUDGING HOGS

Two methods of judging hogs are used: (1) by the score card, (2) by comparison. The first method is now used very little in practical judging, yet the score card should be studied and used as a means of learning the points of a hog and their proper development, as well as their relative importance. On the following pages score cards for fat hogs and breeding hogs of the lard type are given.

*Weight.* A hog must have good weight for its age. There is no fixed single weight which the packer or the butcher can be said to prefer. Fat hogs weighing from 170 to 250 pounds ordinarily bring the highest prices on the market, provided they have the form, quality and finish which come from improved breeding and good feeding. This weight should be attained when the pigs are 6 to 10 months of age. A good standard of weight for age is an average daily gain of one pound from birth.

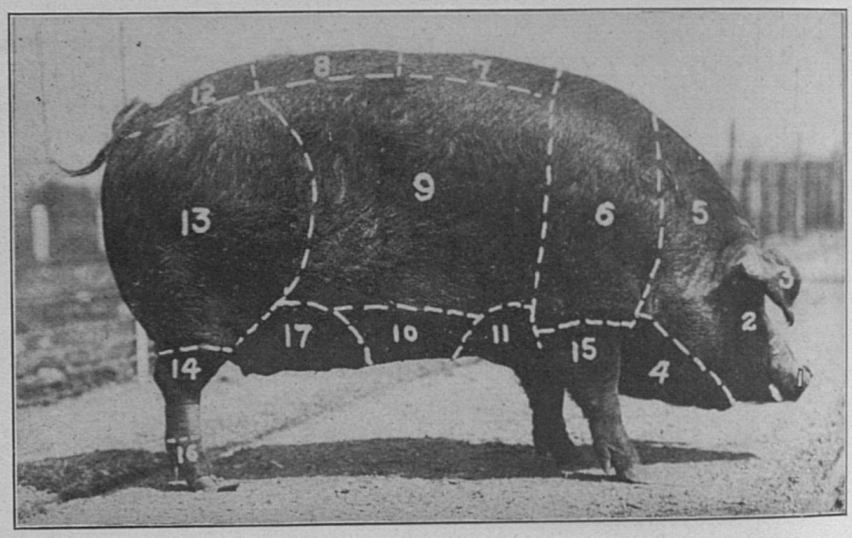


Fig. 38. Points of the Hog.

1. Snout.
2. Face.
3. Ear.
4. Jowl.
5. Neck.
6. Shoulder.
7. Back.
8. Loin.
9. Side.
10. Belly.
11. Fore flank.
12. Rump.
13. Ham.
14. Hind leg.
15. Fore leg.
16. Pastern.
17. Flank.

## SCORE CARD FOR LARD HOGS—FAT

| Standard of Excellence | Perfect Score |
|---|---|
| **A. General Appearance—35 Points.** | |
| **Weight**.....lbs., according to age | 4 |
| **Form**, deep, broad, long, lowset, symmetrical, compact, standing squarely on legs | 7 |
| **Condition**, thrifty, well fleshed, fat but firm | 12 |
| **Quality**, hair fine; bone strong but not coarse, skin smooth, even covering of firm flesh, free from lumps and wrinkles | 10 |
| **Style**, attractive | 1 |
| **Action**, spirited, straight forward, regular, free and easy | 1 |
| **B. Head and Neck—7 Points.** | |
| **Snout**, medium length, not coarse | 1 |
| **Eyes**, full, bright, not obscured by wrinkles | 1 |
| **Face**, broad between eyes and ears, smooth | 1 |
| **Ears**, fine texture, medium size, neatly attached | 1 |
| **Jowl**, smooth, firm medium size, not pendulous | 1 |
| **Neck**, short, deep, thick, joining head to shoulders smoothy | 2 |
| **C. Forequarters—10 Points.** | |
| **Shoulders**, deep, full, compact, smooth, not too heavy | 7 |
| **Legs**, straight, strong, tapering, medium length, set well apart, bones smooth, joints clean, pasterns upright, feet medium size, not sprawling, squarely placed | 2 |
| **Breast**, full, smooth, neat | 1 |
| **D. Body—29 Points.** | |
| **Chest**, deep, wide, large girth | 2 |
| **Back and loin** long, broad, strong, even width, thickly and evenly fleshed | 15 |
| **Sides**, long, deep, full even width, free from wrinkles and flabbiness; ribs long, carrying fullness well down | 10 |
| **Belly**, straight, even, not flabby, proportionate in width | 2 |
| **E. Hindquarters—19 Points.** | |
| **Rump**, long, wide, even in width, thickly and evenly fleshed, rounding from loin to root of tail, not too drooping | 5 |
| **Hams**, broad, especially at upper end, deep, full, well fleshed and plump, not too fat | 12 |
| **Legs**, straight, strong, tapering, medium length, set well apart; bones smooth; joints clean, pasterns upright; feet medium size, not sprawling, squarely placed | 2 |
| Total | 100 |

## SCORE CARD FOR LARD HOGS—BREEDING

| Standard of Excellence | Perfect Score |
|---|---|
| **A. General Appearance—40 Points.** | |
| **Weight,** 6 months, 200 lbs.; one year, 400 lbs.; 2 years, 800 lbs. | 6 |
| **Form,** deep, broad, long, moderately lowset, symmetrical, compact, standing squarely on legs | 7 |
| **Quality,** hair fine; bone straight not coarse, skin smooth, even covering of flesh, free from lumps and wrinkles, features refined but not delicate | 6 |
| **Condition,** thrifty, well fleshed, but not excessively fat | 4 |
| **Constitution,** chest capacious, brisket advanced and low; flanks full and well let down | 8 |
| **Disposition,** quiet, gentle | 1 |
| **Breed** type, having all characteristics of breed | 5 |
| **Coat,** fine, straight, bright, smooth, evenly distributed, lying close to body, no swirls | 3 |
| **B. Head and Neck—11 Points.** | |
| **Eyes,** full, mild, bright, not obscured by wrinkles | 2 |
| **Face,** short, broad between eyes, dished according to breed, cheeks smooth | 2 |
| **Ears,** fine texture, medium size, neatly but firmly attached, carriage according to breed | 2 |
| **Jowl,** smooth, firm, medium size | 2 |
| **Neck,** short, deep, thick, narrow at nape, thickening toward and joining smoothly to shoulder | 3 |
| **C. Forequarters—10 Points.** | |
| **Shoulders,** broad, deep, full but not heavy, on a line with sides | 5 |
| **Legs,** straight, medium length, strong, tapering, set well apart, bone large, strong and smooth, joints clean, pasterns upright, feet medium size, not sprawling, squarely placed | 5 |
| **D. Body—20 Points.** | |
| **Back and loin,** broad, strong, long, even width, thickly and evenly fleshed | 9 |
| **Sides,** deep, long, full, free from wrinkles; ribs, long and well sprung | 7 |
| **Belly,** straight, even, not flabby, proportionate in width | 2 |
| **Flank,** full and even with body, not cut up | 2 |
| **E. Hindquarters—19 Points.** | |
| **Rump,** long, wide, evenly fleshed, rounding from loin to root of tail, neat, high tail setting | 3 |
| **Hams,** plump, full, deep, broad, no roughness, not cut up, well fleshed to hock | 10 |
| **Legs,** straight, medium length, strong, tapering, set well apart, bone large, strong and smooth, joints clean, pasterns upright, feet medium size, not sprawling, squarely placed | 5 |
| **Tail,** medium size and length, smooth and tapering | 1 |
| Total | 100 |

*Form.* It is very important that the hog have good form. Observations should be made systematically. It is better not to get too close, because the outline and general proportions can be observed best from a distance of ten or fifteen feet. From in front note the width between the eyes, the smoothness of the shoulders, width and smoothness of back and loin, and straightness and length of front legs. Passing a little to the right note the smoothness and depth of sides, arch of back, and straightness and trimness of underline. A straight-edge applied to the side of the hog, touching the shoulder and the ham, should touch all along the side. Note also the depth of the shoulder and the ham and the length of legs. The common defects noted from the side are a heavy jowl, cut-up flanks, heavy underline, weak back, and drooping rump. From behind observe the symmetry of lines, depth, length and thickness of hams, and straightness of legs. The ham is one of the most important parts of the fat hog. A hog that stands with his hind legs close together is usually flat and thin in the ham.

The average hog on the Chicago market dresses only 70 per cent of carcass to live weight when killed. A hog of the ideal form, if fat, should dress 85 per cent. The fat hog is lighter in offal or waste and is heavier in the valuable cuts, namely, back, loin and hams.

*Quality.* Good quality in the animal is indicated by fine hair, smooth and pliable skin, an even covering of flesh that is free from lumps and wrinkles, and by clean, straight, strong bone; also the features will be refined, but not delicate. All these things are indicators of good quality of meat, good health, and general thriftiness. The most frequent faults in quality are coarse, heavy head and ears, coarse bone, coarse, curly hair, and wrinkly skin.

*Condition.* Condition is the degree of fatness. It is most important in determining the selling value of lard hogs. The fat covering should be deep and even, especially along the shoulder, back and loin. High finish guarantees a high dressing percentage and improves the keeping and shipping qualities of the meat when cured. The fat hog should be smooth in his covering.

The degree of fatness is indicated by a general plumpness and fullness of form, development of fat in jowl, belly line and hams, and thickness of covering over the shoulder, back, loin and sides. The hand can be used to some extent to determine the thickness and mellowness of covering.

*Comparative Judging.* Practically all show ring judging is now done by comparison; that is, the score card is not used. Judging by comparison is a matter of placing animals according to merit as shown by the four things which indicate dressing percentage and quality of meat, namely weight, form, quality and condition.

*Judging Breeding Hogs.* The animal used for breeding must in addition to the above mentioned points have a strong constitution, conform to breed type, be strong in feet and legs, and show femininity in the case of the brood sow or masculinity in the case of the boar.

*Constitution.* The chest of the breeding hog must be broad, full and extend well forward; likewise, the flanks should be full and well let down. These are indications of good constitution, and this, in turn, makes the animal more thrifty, vigorous, and resistant to disease.

*Breed Type.* Representative animals of all the lard type breeds possess the same general form, yet there are differences between the breeds, or variations within the type, that must not be overlooked. For example, a Duroc-Jersey having a level back would be "off type," and the same thing would be said of a Berkshire having a very highly arched back. The breeding hog must show all characteristics of the breed to which it belongs. These characteristics can be learned best by carefully studying typical animals of each breed.

*Other Important Points.* Other points of the breeding hog that must receive careful consideration in judging are: Back and Loins, Sides, Hams and Legs. These, of course, must be developt to conform to the type of the breed under consideration. In general they should be as described in the score card on the preceding page. The back should be long, strong, broad, evenly covered with flesh and, in most of the breeds, well arched.

The loins, sides and hams furnish the most valuable cuts of meat in the market hog and, therefore, must be well developt in the breeding hog. The legs should be of moderate length, squarely set and have clean, straight bone of good size and texture. The feet and legs should be of such a character that they will support any weight the hog may attain and yet not show the strain in any way.

## Market Classes

Hogs sold on the live stock markets may be classified as follows:

| | |
|---|---|
| Prime Heavy Hogs | 350-500 lbs. |
| Butcher Hogs | 180-350 lbs. |
| Packing Hogs | 250-500 lbs. |
| Light Hogs | 125-220 lbs. |
| Pigs | 60-125 lbs. |
| Roughs. | |
| Stags. | |
| Boars. | |

## Breeds of Hogs

| | | | |
|---|---|---|---|
| Prominent Breeds | Fat or Lard Type | Berkshire | Breeds prominent in Kentucky |
| | | Chester White | |
| | | Duroc-Jersey | |
| | | Hampshire | |
| | | Poland-China | |
| | | Spotted Poland-China | |
| | Bacon Type | Large Yorkshire | |
| | | Tamworth | |

*Two General Types.* The foregoing classification divides the prominent bredes of hogs into two types; (1) the fat or lard type, and (2) the bacon type. All the breeds prominent in Kentucky, Berkshire, Chester White, Duroc-Jersey, Hampshire and Poland-China, are of the fat or lard type. This type is the most prominent in the United States, the bacon breeds being raised to a very limited extent in this country. The general use of corn as feed is largely responsible for the type of hog raised on American farms, corn being a fat-producing feed. Altho representatives of the different lard breeds of

hogs differ considerably in certain minor respects, nevertheless they are all of the same general conformation. When ready for butchering all are broad, deep, relatively short-legged and compact. The backs and loins are full and thick, and the hams are broad, deep and plump.

The bacon type of hog, compared with the fat or lard type, is not as blocky, compact or heavily fleshed, the legs are much longer, the back is not as broad, the ham is lighter and the sides are very long and moderately deep. The flesh of this type of hog carries a larger proportion of lean meat, which, of course, is highly desirable in producing good bacon.

The breeds of hogs discust here are: Duroc-Jersey, Berkshire, Poland-China, Chester White and Hampshire.

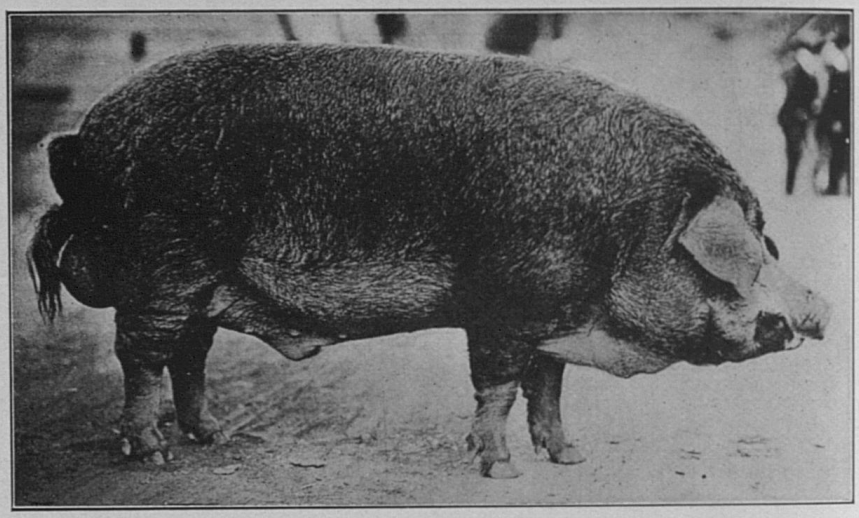

Fig. 39. Duroc-Jersey Boar. A Grand Champion.
Courtesy National Swine Growers' Association.

### Duroc-Jersey

***Origin.*** About 1883 the breeders of Durocs in New York, Connecticut and Vermont and the breeders of Jersey Reds in New Jersey united and agreed upon a uniform standard of excellence. The name, Duroc-Jersey was formulated and adopted at this time; therefore, the breed may be considered an American breed.

*Distribution.* The Duroc-Jersey is represented in practically every state in the union, as well as in Canada, South America and other countries. In the Middle Western and Southern States, Duroc-Jerseys are found in large numbers. Kentucky is one of the leading Duroc-Jersey states.

*Characteristics.* The Duroc-Jersey as bred today is strictly a big type hog. It is broad, deep, long, and stands on legs of good length and size. The bone is medium to large in size and usually strong. The back is of good width and exceptionally well arched; side, deep, long and smooth; loin, full and well fleshed; ham, broad, deep and full. The ears are medium in size and break over about two-thirds of the distance from the base to the tip. The snout is medium in length and the face practically straight.

In color, Duroc-Jerseys vary from light chestnut to deep cherry red. Neither extreme in color is desirable. Breeders are giving more attention to other characteristics more important than color.

Duroc-Jersey sows produce large litters and are good mothers.

*Size.* The Duroc-Jersey should be classed as large in size. Mature boars weigh from 650 to 750 pounds in breeding condition; sows 550 to 650 pounds.

### Berkshire

*Origin.* The Berkshire breed originated in Berkshire County, England. The early type Berkshires were coarse in quality of hair and skin and were quite large, some individuals weighing 1,000 to 1,100 pounds. Improvement of the Berkshire in England was brought about by crossing Siamese and Chinese boars on Berkshire sows.

*Importation and Distribution.* Berkshires were first imported into the United States from England in 1823. At the present time, Berkshires are found in every state in the union, as well as in England, Canada, South America, Australia and other countries.

*Characteristics.* The modern Berkshire as found in the United States is broad, deep and compact, but has good length; back, broad and level or slightly arched; side, deep and smooth; ribs, exceptionally well sprung; loin, full wide and well covered with flesh; ham, deep, wide, thick and firm; legs, of medium length; bone, of medium size; quality, good. The ears are

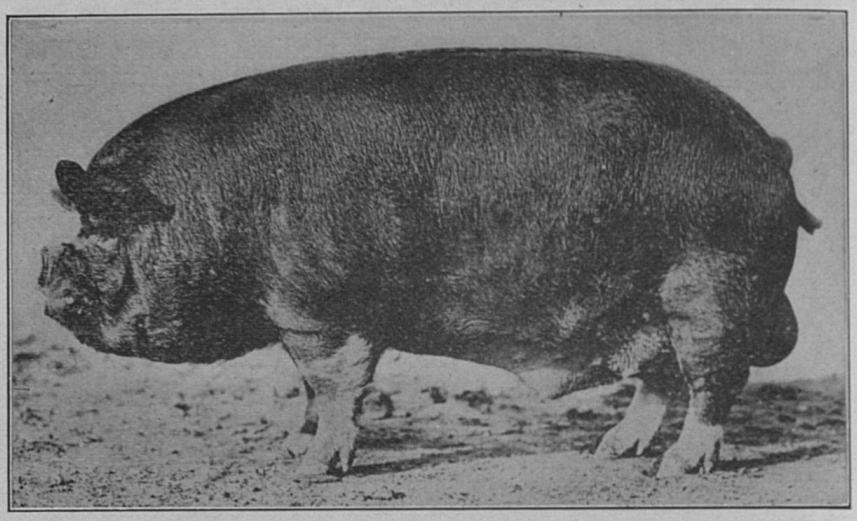

Fig. 40. Berkshire Boar. A Grand Champion.
Courtesy of American Berkshire Association, Springfield, Illinois.

usually almost erect and the snout is quite short. The color is black with six white points—feet, nose and tip of tail.

The Berkshire produces pork of very high quality. Berkshire sows ordinarily produce litters of medium size.

*Size.* The Berkshire may be classed as medium in size. Mature boars attain a weight of about 550 to 600 pounds in breeding condition, and sows about 400 to 450 pounds. Larger type, or more size and growthiness, is one of the important needs of the Berkshire breed.

## Poland-China

*Origin.* The Poland-China breed is of American origin, having been developt between 1835 and 1840 in Butler and Warren counties in southeastern Ohio. Hogs of various breeds

and types were used in the establishment of this breed. Prominent among these foundation hogs were the Byfield, Berkshire, China, Irish Grazier, Russian and the Poland.

*Distribution.* Poland-Chinas are found in practically every state in the union, but are especially numerous in the Middle West. Many of the leading herds are located in that

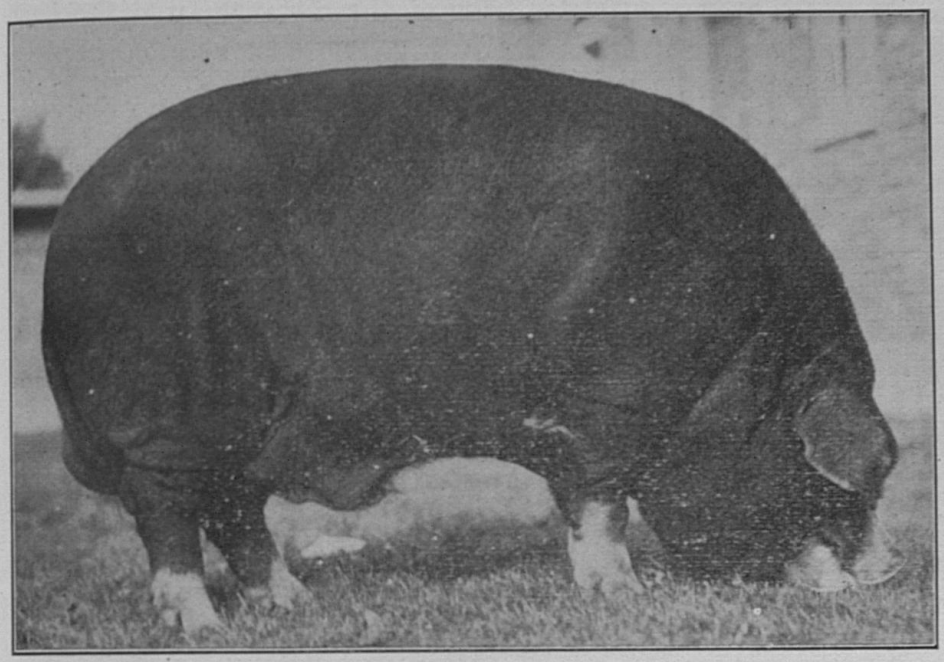

Fig. 41. Poland-China Boar. A Grand Champion.
Courtesy of National Swine Growers' Association, Chicago, Illinois.

section of the country. Poland-Chinas of a much larger type than formerly are now being bred, and this fact has helped to increase the usefulness and popularity of the breed. It is probable that only the Duroc-Jersey exceeds the Poland-China in numbers in Kentucky.

*Characteristics.* Poland-China breeders have been striving during recent years to produce a big-type hog and they have succeeded remarkably well. The modern Poland-China probably attains slightly more size under favorable conditions than any other of the common breeds in the United States. Very few Poland-China herds of the medium and small types can be found. The big-type hog is a more economical and profitable breeder and feeder than the other types.

In form the modern Poland-China is broad, deep, long and massive. The legs are of good length and size. The bone is usually large and of good quality. The animal stands up well on its toes. The back is broad and slightly arched; side, very deep, long and smooth; loin, full and well covered with flesh; ham, very broad, deep and full. The ears are medium in size and break over about two-thirds of the distance from the base to the tip. The snout is medium in length and the face practically straight.

Poland-Chinas are black but usually have the six white points—nose, feet and tip of tail. A few white markings on other parts of the body are often found and are not objectionable.

The litters produced by Poland-China sows are at least medium in size. It is generally conceded, however, that the big-type sows are somewhat more prolific than those of smaller type were in past years.

*Size.* The Poland-China should be classed as large in size. It is not uncommon for mature boars to wiegh 750 to 850 pounds and mature sows 600 to 750 pounds in breeding condition.

## Chester White

*Origin.* The Chester White breed originated in Chester and Delaware counties, Pennsylvania about 1848.

*Distribution.* Chester White hogs are found in large numbers in the Eastern and Middle Western States. They are not as popular in the Southern States as in other sections of the country. This is probably due to the popular impression that white hogs suffer from the heat more than hogs of darker color.

*Characteristics.* The Chester White as bred in the United States at the present time is broad, deep and of good length, but some individuals are rather loosely coupled; back, broad and level or slightly arched; side, deep and fairly smooth; loin, full and well covered with flesh; hams, broad, deep and full. The legs are of moderate length, and the bone is rather large

and usually strong, as shown by the pasterns. The ears break over about one-third of the distance from the base to the tip.

The color is solid white. Occasionally, however, black or bluish spots are found on the skin under the white hair. The snout is of medium length and the face practically straight.

Chester White sows ordinarily produce large litters.

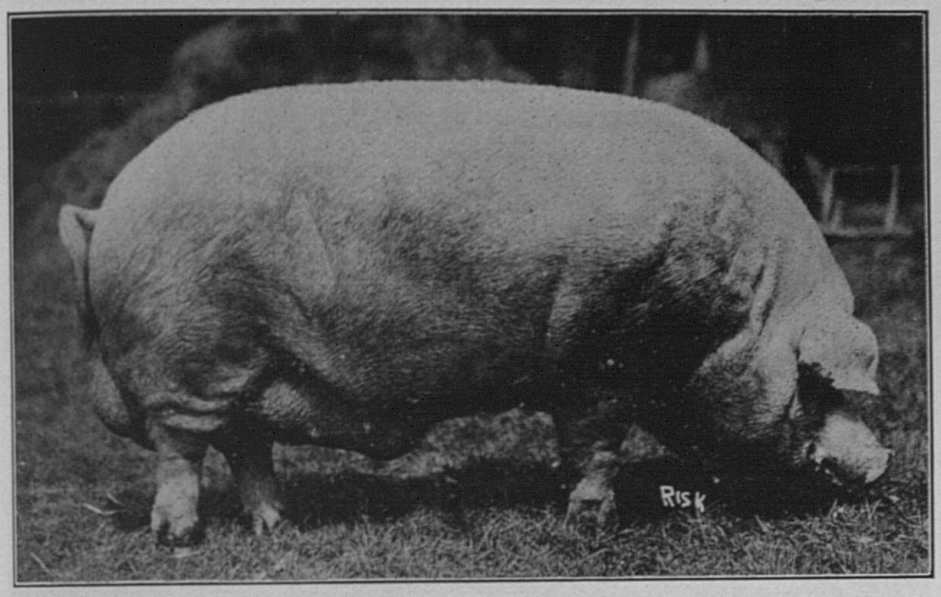


Fig. 42. Chester White Boar. A Grand Champion.
Courtesy of Chester White Record Association, Rochester, Indiana.

*Size.* The Chester White may be classed as medium to large in size. 650 pounds is considered good weight for a mature boar in breeding condition; 500 to 550 pounds for a mature sow.

## Hampshire

*Origin.* The origin of the Hampshire breed is not definitely known. Some American authorities trace it back to Hampshire, Essex and Cambridge, England, however, and there is little doubt that the breed originated in England.

*Importation and Distribution.* Hogs showing the Hampshire characteristics were imported from England to Massachusetts about 1800. About 1835 Hampshires were brought into Kentucky by Major Joel Garnett of Boone County.

*Characteristics.* Practically all Hampshire breeders look upon this hog as belonging to the fat or lard type and it should be considered as such.

The modern Hampshire is medium in breadth, deep and moderately compact, but has good length; back, straight or slightly arched and medium in width; side, smooth, long and deep; ham, medium width, long and deep; legs of good length with bone of medium size. In many individuals the pasterns

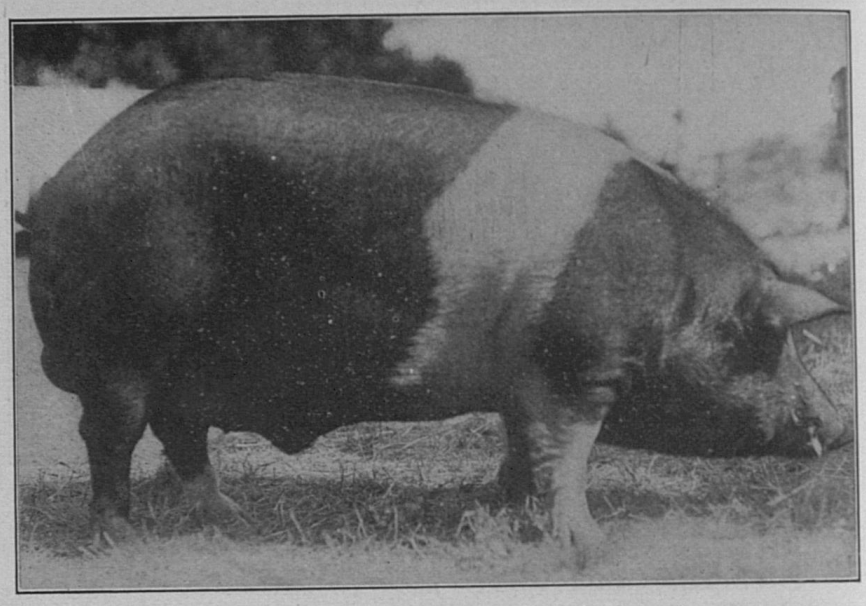

Fig. 43. Hampshire Boar. A Grand Champion.
Courtesy of the Hampshire Advocate, Peoria, Illinois.

are inclined to be weak. The ears are of medium length, erect and show good quality. The snout is medium in length and the face straight. The color is black with a white belt around the body, including the fore legs.

In quality of meat and dressing percentage the Hampshire ranks high. Hampshire sows produce large litters and are good mothers.

*Size.* The Hampshire may be classed as medium to large in size. Mature boars weigh 550 pounds and up, in breeding condition; sows, 450 to 550 pounds.

### Questions

1. Classify the breeds of hogs according to type.

2. Draw an outline of a hog and locate on it all of the 17 points.

3. Name the six main divisions of the score card and give the number of points allowed for each.

4. Which would you use the most in judging hogs, the hand or eyes?

5. What points do you consider in judging breeding hogs? Which of these do you not consider in judging market hogs?

6. Why is the lard hog more popular than the bacon hog in the United States?

7. What do you understand by "breed type"?

8. What color is the Chester White? Poland-China? Duroc-Jersey? Berkshire? Hampshire?

9. Give the approximate weights of each of the above breeds; (a) for boars, (b) for sows.

10. Describe the typical face and ear of each of the above breeds.

# Part VII.

# LIVE-STOCK RECORD ASSOCIATIONS

HORSES

| Breed | Name of Association | Secretary | Address |
|---|---|---|---|
| Percheron | Percheron Society of America | Ellis McFarland | Union Stock Yards, Chicago, Ill. |
| Clydesdale | The American Clydesdale Association | R. B. Ogilvie | Union Stock Yards, Chicago, Ill. |
| Shire | American Shire Horse Association | W. G. Lynch | Tonica, Illinois. |
| Belgian | American Association of Importers and Breeders of Belgian Draft Horses | J. D. Connor, Jr. | Wabash, Indiana. |
| Suffolk | The American Suffolk Horse Association | Alex. Galbraith | Janesville, Wisconsin. |
| Thorobred | The Jockey Club | W. H. Rowe | 5th Ave. & 46th St., New York. |
| Standardbred | American Trotting Register Association | F. E. Best | Chicago, Illinois. |
| American Saddle | American Saddle Horse Breeders' Ass'n | R. H. Lillard | Louisville, Kentucky. |

CATTLE

| Breed | Name of Association | Secretary | Address |
|---|---|---|---|
| Shorthorn | American Shorthorn Breeders' Association | F. W. Harding | 13 Dexter Park Ave., Chicago, Illinois. |
| Polled Shorthorn | The Polled Shorthorn Breeders' Association | J. H. Martz | Greenville, Ohio. |
| Hereford | American Hereford Cattle Breeders' Ass'n | R. J. Kinzer | Kansas City, Missouri. |
| Aberdeen Angus | American Aberdeen Angus Breeders' Ass'n | Chas. Gray | 817 Exchange Ave., Chicago, Ill. |
| Galloway | American Galloway Breeders' Association | R. W. Brown | 817 Exchange Ave., Chicago, Ill. |
| Holstein-Friesian | Holstein-Friesian Association of America | F. L. Houghton | Brattleboro, Vermont. |
| Jersey | The American Jersey Cattle Club | R. M. Gow | 324 W. 23rd St., New York. |
| Ayrshire | Ayrshire Breeders' Cattle Club | J. G. Watson | Brandon, Vermont. |
| Guernsey | American Guernsey Cattle Club | W. H. Caldwell | Peterboro, New Hampshire. |
| Milking Shorthorn | American Milking Shorthorn Breeders' Association | | Independence, Iowa. |

SHEEP

| Breed | Name of Association | Secretary | Address |
|---|---|---|---|
| Southdown | American Southdown Breeders' Association | F. S. Springer | Springfield, Illinois. |
| Shropshire | American Shropshire Registry Association | Julia M. Wade | Lafayette, Indiana. |
| Hampshire | American Hampshire Sheep Association | C. A. Tyler | Detroit, Michigan. |
| Oxford | American Oxford Down Sheep Record Association | W. A. Shafor | Hamilton, Ohio. |
| Cheviot | American Cheviot Sheep Society | E. A. Stanford | Chestnut Hill, Pennsylvania. |
| Dorset Horn | Continental Dorset Club | Edith Chidester | Mechanicsburg, Ohio. |
| Cotswold | American Cotswold Registry Association | F. W. Harding | Wheaton, Illinois. |
| Rambouillet | American Rambouillet Sheep Breeders' Association | Dwight Lincoln | Marysville, Ohio. |

HOGS

| Breed | Name of Association | Secretary | Address |
|---|---|---|---|
| Duroc-Jersey | American Duroc-Jersey Swine Breeders' Association | R. J. Evans | Chicago, Illinois. |
| | National Duroc-Jersey Record Association | J. R. Pfander | Peoria, Illinois. |
| Berkshire | American Berkshire Association | F. S. Springer | Springfield, Illinois. |
| Poland-China | American Poland-China Record Association | W. M. McFadden | Union Stock Yards, Chicago, Ill. |
| | National Poland-China Record Association | A. M. Brown | Winchester, Indiana. |
| | Standard Poland-China Record Association | Geo. F. Woodworth | Maryville, Missouri. |
| Chester White | Chester White Record Association | Frank F. Moore | Rochester, Indiana. |
| | O. I. C. Swine Breeders' Association | J. C. Hiles | Cleveland, Ohio. |
| Hampshire | American Hampshire Swine Record Ass'n | E. C. Stone | Peoria, Illinois. |