

LIVESTOCK JUDGING FOR 4-H CLUB MEMBERS

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NORTH CAROLINA STATE COLLEGE OF AGRICULTURE AND ENGINEERING
AND

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RALEIGH, NORTH CAROLINA

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INTRODUCTION

Because of its value in teaching the fundamental facts regarding the types, characteristics and functions of farm animals, Livestock Judging is considered a definite part of our 4-H Livestock projects. To make this a more valuable project this bulletin has been prepared. It represents the best thought and the most accurate information available, and has been assembled in a form understandable to farm boys and girls. Every farm boy and girl should be a good judge of livestock.

North Carolina needs more and better livestock in order to have a more profitable system of agriculture; to maintain soil fertility; and to supply the necessary food and feed supply for man and animals. Good livestock is essential to a profitable program of agriculture. A correct knowledge of good livestock is a prerequisite to good livestock. Therefore it is our hope that through 4-H livestock projects and especially through livestock judging that the 4-H Club Member will learn to recognize the good as well as the undesirable types and characteristics of livestock and that as a result of this training and information North Carolina will have more and better livestock.

L. R. HARRILL,
State Club Leader.

Livestock Judging For 4-H Club Members

JUDGING HORSES AND MULES

By F. M. HAIG and R. E. NANCE

In judging horses, whether it be from a breeding or market standpoint, the points to be considered are quite similar. The market classes of horses involve many different and dissimilar types, of which the heavy drafter will be the one type considered in the following discussion.

Doubtless the most important factor affecting the sale-value of a market horse is soundness; that is, the animal should be free from any condition, disease or injury which now does or may later detract from his value or, as in many cases, interfere with his natural usefulness. A blemish on the other hand is usually some minor injury that may detract from his looks or sale, but does not to any extent make the animal less useful to the average buyer. Space in this bulletin prohibits the discussion of the many different blemishes and unsoundnesses that may be found, and if there is any doubt as to the soundness of the horse, an examination by some competent veterinarian is to be recommended.

Aside from soundness, other points to be considered in judging heavy draft horses are size, weight, conformation, age, quality, condition, action, disposition, color, and education. To these qualifications must be added in case of purebred breeding animals sex and breed character.

Size and weight are of great importance in the heavy draft type, as these factors give the animal greater adhesion to the ground in starting a load, and also tend to displace an equal poundage of the load.

The conformation or form of the draft horse should be massive and symmetrical, indicative of power, balance, constitution and great capacity. These items will be discussed on the score card.

Age is essential, as the very young or very old horse is not so salable as the one in his prime. For ordinary market demands, those animals from five to nine years are the most salable.

Quality may be described as the possession of excellence, and is denoted by smooth, dense bone, silky hair and mellow skin. The eyes should be bright and the head refined; the lips firm and thin; ears rather small and carried alertly; the mane and tail soft and wavy. Quality is usually associated with other good features that the animal may possess.

Condition refers to the amount of flesh the animal is carrying. Condition always improves conformation and is a prime essential in selling the animal. A sound, fat horse will always outsell a sound thin one.

Action is very important, in that it enables the horse to use his great weight and strength to the best advantage. A good springy walk, with good length of stride and a smooth "line trot," keeping the hocks close together, are desirable in the drafter.

Disposition is important in that the nervous or vicious animal is usually not wanted for any purpose. The draft horse should possess a good, willing, though kind disposition.

Education might well be considered along with disposition. The well broken good dispositioned horse is the animal demanding the top price.

Color is chiefly involved when it comes to matching teams. is a popular color for the city drafter, although any solid color is more desirable than a broken color. Too much white is not desired.

In judging the breeding animals of the draft breeds, considerable attention must necessarily be placed on the possession of both breed and sex character. The animal of pure breeding should be possessed of the characters of his breed, and should show no character that is foreign to his blood lines.

The possession of sex character is very important in the breeding animal, as weakness in this respect will be reproduced in the offspring. The mare that is masculine about the head and neck will in many cases be found to be a "shy breeder," and the colts, if she produces any, will in many cases be possessed of the same undesirable feature. The stallion which does not show abundant masculinity about the head and forequarters, and which is not well developed sexually, will in many cases produce masculine daughters and feminine sons. In most cases the possession of an abundance of sex character may be regarded as an indication of breeding ability.

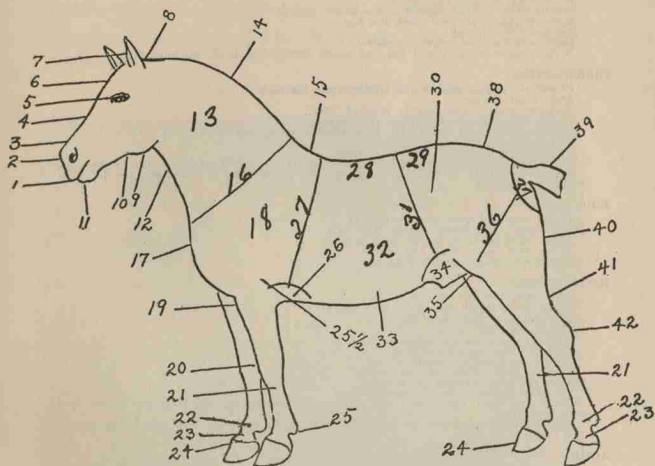


Fig. 1.—Showing Location of Parts of Draft Horse

KEY TO OUTLINE

1. Mouth
2. Nostrils
3. Nose
4. Face
5. Eye
6. Forehead
7. Ears
8. Poll
9. Throat-latch
10. Jaw
11. Chin

12. Windpipe
13. Neck
14. Crest
15. Withers
16. Shoulder bed
17. Breast
18. Shoulder
19. Forearm
20. Knees
21. Canons
22. Fetlock joints

23. Pasterns
24. Feet
25. Feather
- 25½. Elbow
26. Fore flank
27. Heartgirth
28. Back
29. Loin
30. Hip bone
31. Coupling
32. Ribs

33. Belly or underline
34. Hind flank
35. Stifle
36. Thigh
37. Buttocks
38. Croup
39. Tail
40. Quarters
41. Gaskin or lower thigh
42. Hocks

DESCRIPTION OF THE DRAFT HORSE

GENERAL APPEARANCE:

Weight—1500 pounds or over, age considered.
 Conformation—massive, short back, deep body, long, broad, level croup, whole form blocky and strong, possessing symmetry of form.
 Quality—smooth hard bone, hoofs dense and waxy, hair silky and abundant, skin mellow.
 Temperament—alert, but kind good disposition.

HEAD AND NECK:

Head—lean, medium size, refined.
 Muzzle—fine, nostrils large, lips fine, firmly carried.
 Eyes—bright, clear, good sized, lids fine.
 Forehead—broad, full.
 Ears—medium sized, carried alertly.
 Neck—medium sized, throat fine and neatly attached at head, windpipe large.

FOREQUARTERS:

Shoulders—sloping smooth and blending into the back.
 Arm—short, strong.
 Forearm—good length, heavily muscled, wide.
 Knees—wide, clean cut, straight, very strong.
 Canons—short, bone heavy and clean, tendons strong and distinct, set back.
 Fetlocks—wide, straight and strong.
 Pasterns—clean, 45 per cent slope, strong.
 Feet—large, even size, horn dense, bars strong, frog elastic, hoof heads clean, heels wide.
 Legs—a plumbline in front of leg from point of shoulder should bisect the leg from shoulder to ground.

BODY:

Chest—deep and wide, heartgirth large.
 Ribs—long, close, widely sprung from back.
 Back—straight, short, broad, deep muscled.
 Loin—short, wide, thick and strong.
 Underline—strong coupled, flank low.

HINDQUARTERS:

Hips—wide and full, smooth.
 Croup—good length, straight, well muscled.
 Tail—attached high, well carried.
 Thighs—muscular, deep.
 Quarters—deep, heavily muscled.
 Gaskins—wide, strong and deep.
 Hocks—clean, wide, straight, strong.
 Canons—short, wide, flat and strong.
 Fetlocks—wide, straight and strong.
 Pasterns—strong, clean, 50 per cent slope.
 Feet—large, even size, horn dense, dark color, bars strong, frog large and elastic, heel wide and strong.
 Legs—a line dropped from the point of buttock should bisect leg, hock, cannon and fetlock and heel.

ACTION:

Walk—smooth, well-balanced, stride good length.
 Trot—smooth, hocks carried well under and close together. Good flexing of both knee and hock at walk and trot.

PERCHERONS¹

The original home of the Percheron horse is La Perche, France, a section covering about sixty square miles and comprising parts of the Eure-et-Loise, Sarthe, and Orne districts of France. The first Percherons which left a lasting impression on the horse stock of this country landed in 1851. Those two horses, afterward famous, were named Normandy and Louis Napoleon.

The first record association for Percherons in the United States termed this breed Normans. The Norman horse (later called the Percheron) came from the district called Normancy which joins to the north and west the territory called La Perche.

¹Material on different breeds assembled from data furnished by the respective breed associations.

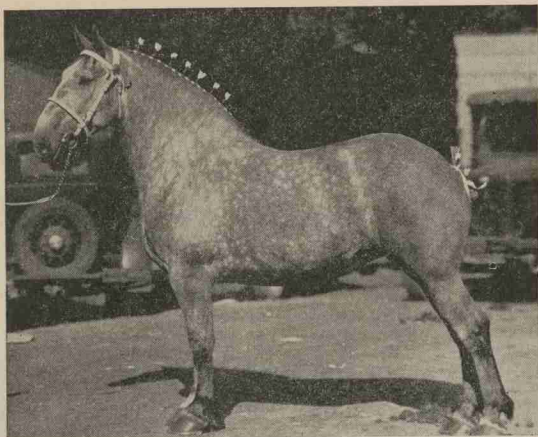


Fig. 2.—Grand Champ Percheron mare, Indiana State Fair 1935,
Ell Lilly farm near Indianapolis.

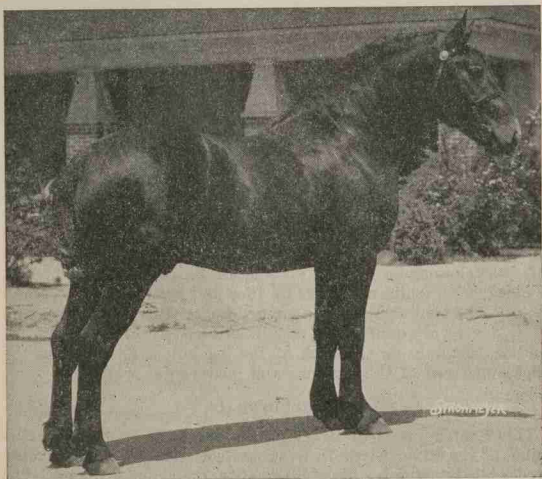


Fig. 3.—The above purebred Percheron Stallion is owned by Mr. W. T. Moss,
Youngsville, N. C.

It was for this reason that the horses first brought from this part of France were called Normans, but when the Percheron Society of France was organized in 1883, the name Norman was dropped by the Percheron Horse Association of America, which had been organized in 1876.

Available statistics show that there are approximately three times as many registered Percherons in the United States as all other draft breeds combined. The greatest number of these being found in the North Central and the fewest number in the South Atlantic States.

The Percheron is comparatively short-legged. In the best individuals of the breed the length of the leg is about the same as the depth of the body from the top of the withers to the bottom of the chest. Approximately 95% of Percherons are either black or grey, although sorrell, chestnut bay or roan color is permissible.

BELGIANS

The Belgian horse, as the name indicates, originated in Belgium and is the oldest breed of draft horses. The ancestors of the modern Belgian may be traced back to the time of Caesar. The Belgian is the widest, deepest, most compact, and lowest set of any of the draft breeds. He weighs more for his height than any breed. A stallion should stand 16 to 17 hands and weigh a ton or better, while mares should stand 15 to 16 hands and weigh 1,800 pounds or over. Seven out of every eight Belgian horses are bay, chestnut or roan, although black, brown, and gray are accepted colors.

SHIRE

The Shire breed originated in east central England. No other breed excels the Shire in size and weight. The Shire is no heavier on the average than the average Belgian horse, but he is taller, longer of leg, and possesses heavier bone and more muscular development. Ninety percent of Shires are bay, brown, or black, with white markings on face and legs, below knees and hocks. The typical Shire is a rugged horse with heavy bone and a fair degree of quality. He usually possesses a great amount of feather, not only on the back of the leg but often covering the sides and front of the cannons and pasterns as well.

THE CLYDESDALE

This Scotch breed of draft horses takes its name from the valley of the River Clyde in western Scotland. The present day Clydesdale is noted for his style, quality, the slope of his pasterns

and the excellence of his action. Clydesdales are less massive in appearance than other draft breeds. Stallions measure 16-2 hands or over, and mares 16 hands or over. Very few exceed 17 hands. Stallions should weigh 1,900 pounds or better and mares 1,600 pounds or more. Ninety percent of Clydesdales are either bay or brown in color with extensive white markings on legs and face. There is some discrimination against chestnut, roan or gray. In action the Clydesdale is in a class by himself. The splendid action of the Clydesdale is the result of long and careful selection. He is sometimes criticised for being light of middle,

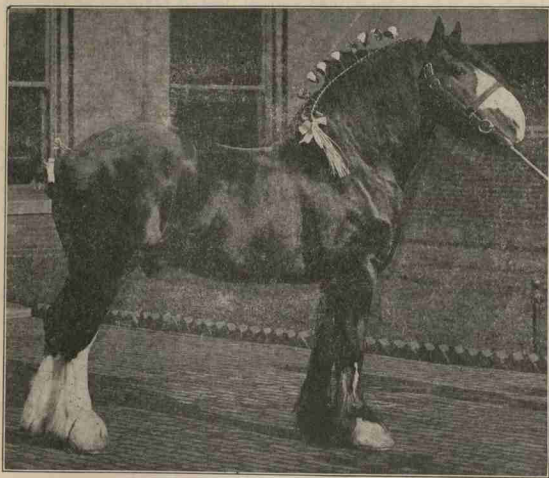


Fig. 4.—Clydesdale

and lacking size, weight and substance. The feathering or long hair on the legs should be confined to the back of the leg and should be of fine quality.

SUFFOLK

The native home of the Suffolk is in the County of Suffolk, England. The breed has never become generally popular in this country, possibly due to the fact that it is the smallest of the draft breeds. The stallion weighs about 1,900 pounds and mares

1,500 to 1,600. The only color eligible for registry is chestnut. White markings occur in some individuals, but are not desirable. Suffolks are free from feathers on their legs.

THOROUGHBRED

The Thoroughbred is the oldest of the light horse breeds. It originated in England and is the result of crossing oriental blood, Arabian Barb, and Turk, on the old English light horse. This breed has played a prominent part in the foundation of all our light horse breeds. In addition to being supreme as a running horse it has also gained a great deal of favor as an officer's mount, and offspring from weighty Thoroughbred stallions and chunky medium sized mares are proving their worth for work on the farm.

AMERICAN SADDLE HORSE

The American Saddle Horse is strictly an American product and is noted for its style and beauty. The association will accept for registry either three or five gaited horses, but the breed is noted primarily because of the horses showing five gaits, namely, the rack or single foot and fox trot or running walk in addition to the walk, trot, and canter common to all breeds.

STANDARD BRED

To this breed belongs the American trotter and pacer. Speed and endurance are the principal characteristics of the Standard-bred.

MORGAN

The Morgan horse was developed in New England and though small in size is noted for its endurance and usefulness as a general utility animal.

JACKS, JENNETS AND MULES

Five foreign breeds have been used in the development of the American Jack, namely, the Andalusian, Maltese, Catalonian, Majorca, and Poitou. The standard height of the American jack at maturity is 15 to 16 hands, weight 1,000 to 1,200 pounds, heart girth from 65 to 72 inches, and cannon bone 8 to 10½ inches.

The mule is a hybrid, and like many hybrids is sterile. The mule is the product of the mare when mated to the jackass. The cross which results from mating a stallion to a jennet, or she ass, is known as a hinney and is also a hybrid, but is not as satisfac-

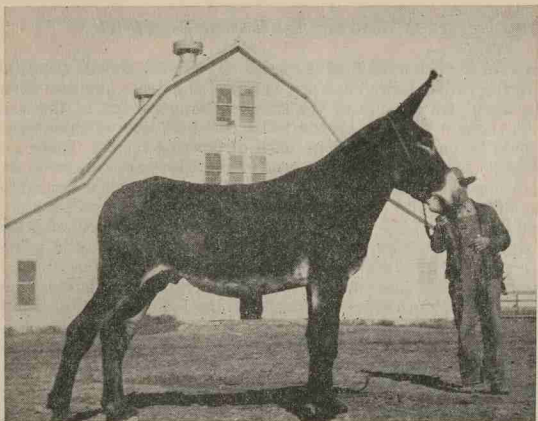


Fig. 5.—Grand Champion Jack in 1935 at the Missouri, Illinois and Kansas State Fairs.

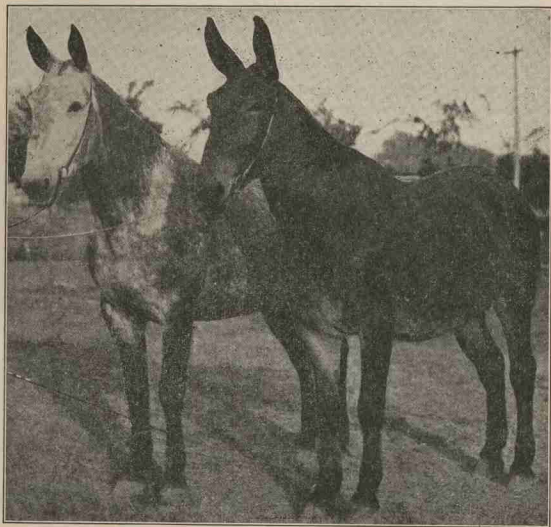


Fig. 6.—Farm Mules

tory for a work animal as the mule. The mule inherits from the sire the rather large head and ear, and the draft qualities from the dam. On account of the sluggish temperament of the sire, it is thought by mule breeders that the best type of mule mare should be one with a strong dash of trotting blood. There are several classes of the mules, the heavy draft type of mule demanding the best prices. In general the draft mule resembles the draft horse to a considerable degree, though not of such size and weight. Very satisfactory mules weigh upward of 1,200 pounds. Almost any color occurs in mules, but the solid colors are preferable. In general mules are more hardy than horses, standing bad management, heat and cold with less distress than horses. They are especially useful in the hot states of the South because of this quality.

SCORE CARD FOR MULES

GENERAL APPEARANCE:		Points
Weight—1200 pounds up, age considered	2	2
Height—fourteen hands up, age considered	2	2
Form—smooth, well balanced	4	4
Quality—skin mellow, bones clean, hair smooth	4	4
Temperament—active, good disposition	4	4
HEAD AND NECK:		
Head—large, symmetrical	1	1
Muzzle—refined, nostrils large, lips even	1	1
Eyes—bright, full and clear	1	1
Forehead—full and wide	1	1
Ears—large and tapering, carried up	1	1
Neck—well muscled, windpipe large	1	1
FOREQUARTERS:		
Shoulders—long, sloping smooth into back	2	2
Arms—short, well muscled, throws back	1	1
Forearms—long, strong muscled, wide	2	2
Knees—wide, strong, good sized	1	1
Canons—ample size, short, clean and strong	3	3
Fetlocks—wide, straight, strong	1	1
Pasterns—45 per cent slope, clean, strong	3	3
Feet—large, horn dense and waxy, frog elastic with broad heels	8	8
BODY:		
Chest—deep and wide, heartgirth large	2	2
Ribs—long, set close and widely sprung from back	2	2
Back—strong, wide, rather short	2	2
Loin—short, wide, thick	2	2
Underline—flank low, coupling strong	1	1
HINDQUARTERS:		
Hips—wide and smooth, muscular	1	1
Croup—good length, muscular, wide	3	3
Tail—long, attached high, good switch	1	1
Thighs—long, deep, well muscled	2	2
Quarters—heavily muscled and deep	2	2
Gaskin—wide, thick	2	2
Hocks—wide, clean, strong	6	6
Canons—strong, clean, tendons clean	3	3
Fetlocks—wide, strong	1	1
Pasterns—clean, strong, 50 per cent slope to hoof	4	4
Feet—good sized, clean, horn dense and waxy, frog elastic and heels wide	4	4
ACTION:		
Smooth walk, stride long and easy, trot straight and true	20	20
Total		100

RECORD ASSOCIATIONS

American Saddle Horse.

American Saddle Horse Breeders' Association, 405 Urban Building, Louisville, Kentucky.

Belgians.

The American Association of Importers and Breeders of Draft Horses, Wabash, Indiana; J. D. Conner, Jr., Secretary.

Clydesdales.

American Clydesdale Association, Union Stock Yards, Chicago, Illinois; Margaret Coridan, Secretary.

Jacks.

Standard Jack and Jennet Registry of America, 1200 Grand Avenue, Temple Building, Kansas City, Missouri; William E. Morton Secretary.

Morgans.

The Morgan Horse Club, Inc., 120 Broadway, New York City; Colgate Mann, Secretary.

Percherons.

Percheron Horse Association of America, Union Stock Yards, Chicago, Illinois; Ellis McFarland, Secretary.

Shires.

The American Shire Horse Association, Tonica, Illinois; W. G. Lynch, Secretary.

Suffolks.

American Suffolk Horse Association, Room 1432, 72 W. Adams Street, Chicago, Illinois; R. P. Stericker, Secretary.

Standardbreds.

American Trotting Register Association, 5253 W. Harrison Street, Chicago, Illinois.

Thoroughbreds.

The Jockey Club, 250 Park Avenue, New York City; Fred. J. E. Klees, Registrar.

General Information.

Horse and Mule Association of America, Chicago, Illinois; Wayne Dinsmore, Secretary.

JUDGING BEEF CATTLE

By J. E. FOSTER and L. I. CASE.

INTRODUCTION

The successful judging of beef cattle requires much training and constant practice. A proficient judge must thoroughly understand what is meant by beef type, and also have a clear knowledge of the relative value of the different parts of the animal, as set forth on the score card and otherwise emphasized in comparative judging.

Experience has shown that it requires an animal with certain body characteristics to stamp it as one capable of efficiently converting feed into flesh. An animal having this characteristic conformation is said to possess beef type.

In learning the relative value of the parts of the beef animal, it must be remembered that the more important parts are given more points on the score card than those of lesser importance. Therefore, in the selection or judging of a beef type animal look first for the parts given the most points, the following score card being for the fat or slaughter steer.

SCORE CARD FOR BEEF CATTLE

Fat

GENERAL APPEARANCE (40 Points):		Points
Weight—score according to age		10
Form—straight topline and underline, deep, broad, low set, stylish		10
Quality—firm handling, hair fine, pliable skin, dense bone, even fleshed		10
Condition—deep, even covering of firm flesh, especially in regions of valuable cuts		10
BODY (32 Points):		
Back—broad, straight, smooth, even		10
Loin—thick, broad		8
Ribs—long, arched, thickly fleshed		8
Chest—full, deep, wide, girth large, crops full		4
Flank—full, even with underline		2
HINDQUARTERS (13 Points):		
Thighs—full, deep, wide		2
Rump—long, wide, even tail, head smooth, not patchy		2
Twist—deep, plump		2
Hips—smoothly covered, distance apart in proportion with other parts		2
Legs—straight, short, shank fine, smooth		2
Purse—full, indicating fleshiness		2
Pin-bones—not prominent, far apart		1
FOREQUARTERS (8 Points):		
Shoulder—covered with flesh, compact on top, smooth		2
Shoulder vein—full		2
Legs—straight, short, arm full, shank fine, smooth		2
Brisket—advanced, breast wide		1
Devlap—skin not too loose and drooping		1
HEAD AND NECK (7 Points):		
Neck—thick, short, throat clean		2
Muzzle—broad, mouth large, jaw wide, nostrils large		1
Eyes—large, clear, placid		1
Face—short, quiet expression		1
Forehead—broad, full		1
Ears—medium size, fine texture		1
Total.....		100

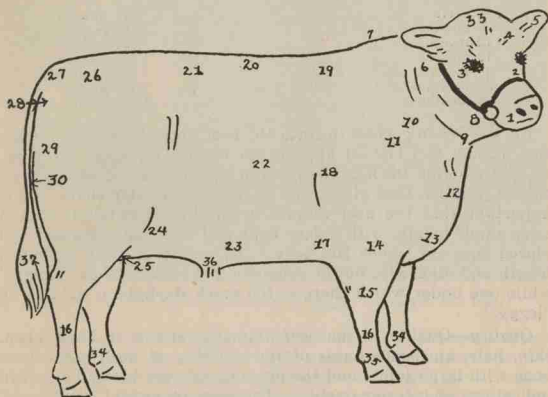


Fig. 7.—Location of Parts of Beef Animal

- | | | |
|-------------------|------------------------|--------------------------|
| 1. Muzzle | 13. Brisket | 25. Cod or purse |
| 2. Face | 14. Arm | 26. Rump |
| 3. Eye | 15. Knee | 27. Tail-head |
| 4. Forehead | 16. Shank | 28. Pin-bones |
| 5. Ear | 17. Fore flank | 29. Thigh |
| 6. Neck | 18. Heartgirth | 30. Twist (between legs) |
| 7. Crest | 19. Crops | 32. Switch |
| 8. Jaw | 20. Back | 33. Poll |
| 9. Throat | 21. Loins | 34. Dew claws |
| 10. Shoulder vein | 22. Ribs or side | 36. Sheath |
| 11. Shoulders | 23. Belly or underline | |
| 12. Dewlap | 24. Rear flank | |

GENERAL APPEARANCE

Weight—From the standpoint of the breeder weight for age is very important. One of the important requisites of a beef animal is that they show inclination to develop rapidly and mature at an early age. Size and weight in the beef animal vary according to age, sex, breed, and fatness. However, disregarding breed differences, the following figures represent fair standards of weight at the different ages for well fattened steers:

At birth	70 pounds
6 months	450 pounds
12 months	850 pounds
18 months	1,100 pounds
24 months	1,300 pounds
30 months	1,475 pounds
36 months	1,600 pounds

Form—When correct in form the beef animal presents a massive, blocky and low-set appearance from every angle of view. As viewed from the side the top and bottom lines of the body extend parallel, thus giving the body a rectangular shape. It is important that the beef animal be blocky, although it should have ample length, with a deep body and legs that are short and placed squarely under the body. An animal having too much length and otherwise out of proportion is spoken of as "rangy," while one under which there is too much daylight is said to be "leggy."

Quality—Quality in the beef animal is shown in bone, horn, skin, hair, and smoothness of the covering of flesh. A coarse bone with large joints and the presence of very heavy horns are indications of inferior quality. The most important evidence of quality is shown by the hair and hide. The hide should always be soft and pliable, while the hair should be fine and silky. A very thin or tight hide on the beef animal is undesirable, as it is usually associated with lack of vigor and gaining propensities.

Condition—Condition in the beef animal is measured by the thickness of fleshing. The flesh of an animal in good condition has a mellow, yet firm and springy feel. It should not feel hard, neither should it be soft and flabby. In examining the animal for condition or thickness of flesh it is well to place the hand over the crops and then along the back and over the ribs and shoulders. A full cod, tongue-root and hindflank are indications of good condition.

In judging beef cattle it is necessary to take into consideration that fat steers and breeding stock are judged differently. In breeding stock the main additional points emphasized are breed type, sex characteristics, and constitution. In the fat steer stress should be laid on condition and general smoothness

throughout the animal. For this reason a score card for the fat steer and also one for breeding stock is given, the latter following:

SCORE CARD FOR BEEF CATTLE

Breeding

GENERAL APPEARANCE (42 Points):		Points
Weight—score according to age	.....	8
Form—straight top and underline, deep, broad, low set, compact, symmetrical	.....	8
Quality—hair fine, bone strong, not coarse, skin pliable, mellow, even covering of firm flesh, free from rolls, features refined, not delicate, stylish	.....	8
Constitution—heart-girth wide and deep, chest capacious, brisket well developed, flanks deep, bone strong, nostrils and muzzle large	.....	8
Condition—thrifty, well fleshed but not excessively fat, deep covering of flesh	.....	4
Breed type—characteristic of breed	.....	4
Disposition—quiet, docile	.....	2
BODY (26 Points):		
Back—broad, straight, thickly and evenly fleshed	.....	8
Loin—broad, deep, heavily fleshed	.....	6
Ribs—long, arched, thickly fleshed	.....	5
Chest—wide and deep	.....	5
Flank—full, even with underline	.....	2
HINDQUARTERS (16 Points):		
Thighs—full, fleshed well down to hock	.....	4
Rump—long, level, wide, tailhead smooth, not patchy	.....	4
Hips—smoothly covered, width in proportion to other parts	.....	3
Twist—low, full, indicating fleshiness	.....	2
Legs—straight, short, squarely placed, bones smooth, showing quality	.....	2
Pin-bones—not prominent, width in proportion with other parts	.....	1
FOREQUARTERS (9 Points):		
Shoulder—evenly covered with flesh, compact	.....	4
Legs—straight, short, squarely placed, bones smooth, strong, showing quality	.....	2
Shoulder vein—full, smooth	.....	1
Brisket—well developed, breast wide	.....	1
Bewlap—even, skin not loose or drooping	.....	1
HEAD AND NECK (7 Points):		
Neck—short, thick, throat clean	.....	2
Ears—medium size, texture fine	.....	1
Forehead—broad and full	.....	1
Face—short, expressive	.....	1
Eyes—large, clear, placid	.....	1
Muzzle—mouth and nostrils large, lips thin and even	.....	1
Total	.....	100

HOW TO JUDGE THE ANIMAL

Before handling an animal it is always well to note the general appearance from a distance of about ten or fifteen feet. At this distance one should observe straightness of top and bottom lines, length and depth of body, levelness of rump and tailhead, and depth of quarters. Then the animal should be examined at closer range, and handled to further determine the quality and condition. After thoroughly considering these important points it is then necessary to examine the animal for points of less importance on the score card, always comparing the animal with the ideal form represented by the score card.

The Comparative Method of Judging Beef Cattle—Two or more animals may be judged by comparing the parts of one animal with the corresponding parts of the other, always keeping

in mind the ideal form called for by the score card. This is the method generally used by the judges in the show ring. The beginner, however, should practice with the score card until the relative value of the parts given on it are permanently impressed on his mind. He is then prepared to start judging by the comparative method.

Breed Type—The purebred breeding animal should possess the desired characteristics of the breed which it represents. These characteristics making up what is termed breed type, are shown in the form, shape of the body, color markings, conformation of certain parts, and in the horns and head.

Sex Characteristics—Many breeding animals do not show sufficient sex characteristics to stamp them as highly prepotent individuals. A bull should show masculinity by having a burly, bold countenance, and a well developed crest, shoulders, and neck. The cow, however, should exhibit a more feminine appearance, especially about the head and neck. A judge must use his own discretion in determining this point in judging beef animals. These points are very important, however, and should not be overlooked.

Constitution—Constitution really means health or vigor, and if this is kept in mind it can readily be seen why it is so very important that breeding stock should show great constitutional development. Constitution is measured by the depth and width of the heart-girth, by the eyes, muzzle and nostrils, all of which should be large and well developed. This is much more important in breeding animals than in fat cattle.

BREEDS

Shorthorns

The Shorthorn is the largest of the beef breeds, and ranks well in popularity throughout the United States. In color this breed may be pure red, red and white, pure white or roan, the latter being a commingling of red and white hairs without forming a solid color. The horns are comparatively short and preferably curve forward with tip bending inward or slightly upward. They show great length of body with straight top and body lines. They are sometimes criticised for lack of development in heart-girth and for being too "leggy and patchy." The breed is widely distributed throughout the United States and foreign countries where cattle breeding is followed.

The Polled Durham or Polled Shorthorn is an offspring of the

Shorthorn breed with essentially the same characteristics, except the absence of horns.

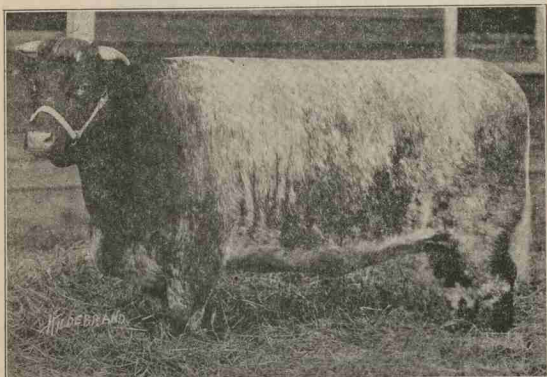


Fig. 8.—Shorthorn

Herefords

The Hereford ranks next to the Shorthorn in size. In color markings the ideal is a rich red with white head, breast, belly,



Fig. 9.—Hereford

crest, switch and ankles. Due to the early maturity of the Hereford, it is well adapted for baby beef production. As a breed, the Hereford is noted for its thriftiness and ability to rustle on the range. This quality, together with their constitutional vigor, has won for them great favor among the western range men. It is true that many individuals lack development in the hindquarters, but not nearly so much as was formerly the case.

The Polled Hereford was developed by selection from the Hereford breed and has the same color markings and essentially the same standard of excellence.

Aberdeen-Angus

The Aberdeen-Angus breed is characterized by its polled head

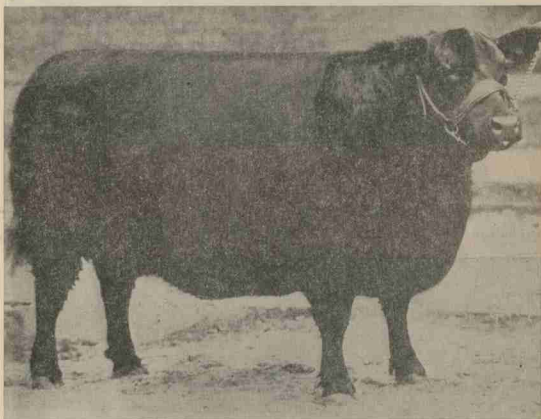


Fig. 10.—Aberdeen-Angus

and black color, although some white is permissible on the underline of the female. In form the breed is more cylindrical than the Hereford or Shorthorn. The maturing quality rank high, and the Aberdeen-Angus is noted for thickness of flesh, and a high dressing percentage.

In size the breed ranks slightly below the Hereford.

DAIRY CATTLE

By J. A. AREY and R. H. RUFFNER.

Although the dairy cow is not found in large numbers on the North Carolina farm, she is rapidly growing in popularity. There are now 382,000 dairy cows in the State. The value of dairy products for 1935 is conservatively estimated at thirty millions, and the demand for them is rapidly developing in every part of the State.

The importance of milk as a food and the great need of manure to maintain soil fertility will always make the dairy cow an important factor in North Carolina agriculture.

JUDGING DAIRY CATTLE

The most accurate method of judging dairy cattle is by their records of production derived by the use of the Babcock Test and

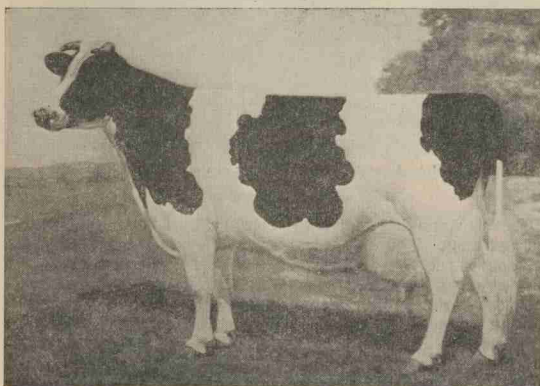


Fig. 11.—A Good Dairy Type with Large Capacity of Barrel and Good Udder Development

milk scales. However, the number of cows that have been tested is small, and most cows must be judged by their conformation.

It has been determined that there is a close relation between the general appearance and conformation of the dairy cow and her ability to produce milk and butter fat. This type or form of the dairy cow, indicating milk production, is largely acquired. The cow in her undomesticated state gave only enough milk to nourish her young, but by careful selection, breeding, and feed-

ing she has been developed into a highly organized living machine, whose chief function is that of milk production. This acquired conformation has been fixed by selection and breeding until it is transmitted with a marked degree of certainty, and is the only guide we have to follow in selecting dairy cows when records of production are not obtainable. Dairy conformation is clearly brought out in Figs. 9 and 10.

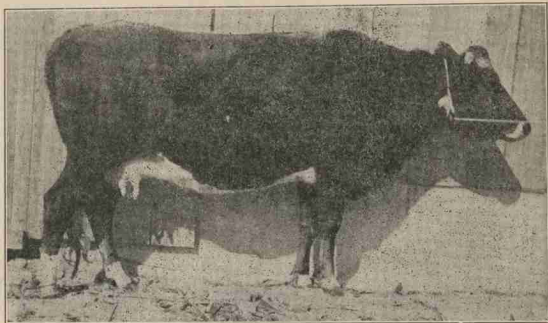


Fig. 11-A.—Unprofitable Type with Lack of Capacity Throughout

DAIRY TYPE

There is a striking contrast in conformation between the dairy and beef cow. This is natural and easily understood when the function of the two animals is considered. The mission of the dairy cow is to take large quantities of roughage and grain and convert them into milk without laying on any excess body flesh; while in the beef cow feed is converted into flesh, resulting in a daily increase in body weight. A side view of the dairy cow presents an angular, wedge-shaped body, thin in flesh, with slender neck, joined to the shoulders rather abruptly, sharp across withers, straight back, incurving thighs, and large udder development; while the beef cow has a square, blocky appearance, with thick neck, gradually blending into the shoulders, broad across withers, straight back with thighs broad, straight, and well let down to the hocks.

As an aid to beginners in making a systematic examination of an animal, and to prevent any points from being overlooked, the score card is used in judging. On the score card the different points of the animal are classified, giving each a credit in proportion to its importance as a whole. The system followed in the

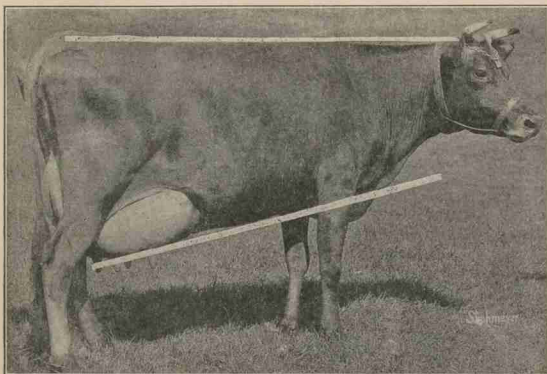


Fig. 12.—Side View of Dairy Cow

score card is to first consider the general form and quality of the animal, then begin with the head and go back over the entire body, considering every part.

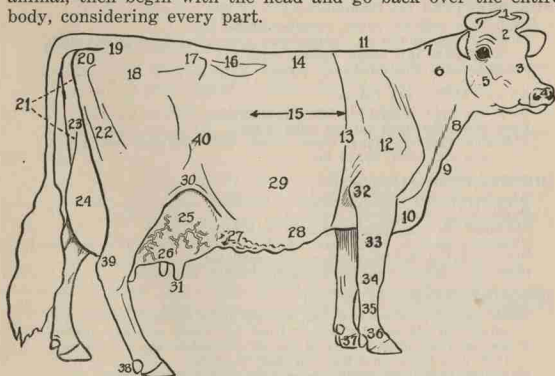


Fig. 13.—Parts of Dairy Animal

- | | | | | |
|------------------|----------------|------------------------------|-------------------------|-------------|
| 1. Poll | 9. Dewlap | 17. Hip bone | 25. Fore udder | 33. Forearm |
| 2. Forehead | 10. Brisket | 18. Thurls | 26. Width between teats | 34. Knee |
| 3. Face | 11. Withers | 19. Tail setting | 27. Milk veins | 35. Shank |
| 4. Nostril | 12. Shoulder | 20. Pin-bones | 28. Milk wells | 36. Ankle |
| 5. Jaw | 13. Heartgirth | 21. Escutcheon | 29. Barrel | 37. Hoof |
| 6. Neck | 14. Back | 22. Thigh | 30. Flank | 38. Fetlock |
| 7. Crest of neck | 15. Ribs | 23. Rear attachment of udder | 31. Teats | 39. Hock |
| 8. Throat | 16. Loin | 24. Rear udder | 32. Elbow | 40. Stifle |

SCORE CARD FOR DAIRY COWS

GENERAL FORM (9 Points):

Points

Wedge-shaped, when viewed from side, top and front	6
Size for the breed—Jersey, 900 lbs; Guernsey, 1050 lbs.; Ayrshire, 1000 lbs.; Holstein, 1200 lbs.	3

QUALITY (7 Points):

Hide—thin, mellow, pliable and loose	2
Hair—fine, soft	1
Secretions—abundant, yellowish	1
Flesh—muscular, free from bunchiness	1
Veins—large and prominent	1
Bone—fine and clean	1

HEAD (6 Points):

Forehead—broad between the eyes and dished according to breed	1.0
Face—medium in length, clean cut in outline, dished below eyes	0.5
Nostrils—large	1.0
Muzzle—broad, but not coarse	1.0
Jaws—wide at base, strong	0.5
Ears—medium sized, thin, hair fine, blood vessels showing secretions abundant	0.5
Eyes—full, prominent, clear and bright	1.0
Horns—small at base, incurving, attached close together at poll	0.5

NECK (2 Points):

Moderately thin, of good length, nearly free from loose skin, neatly joined, throat clean	2
---	---

FOREQUARTERS (11 Points):

Shoulders—withers, sharp, shoulder blades lean	2
Chest—broad and deep, well-sprung fore ribs, large heart-girth, moderately full crops, brisket light	8
Forelegs—straight, fine-boned, strong	1

BODY CAPACITY (18 Points):

Back—straight, strong, vertebrae prominent	5
Ribs—long, flat, well sprung, wide apart	3
Abdomen (barrel)—long, deep, broad, well held up, loin broad, strong and level, flanks low	10

HINDQUARTERS (12 Points):

Hips—wide apart, prominent	3
Rump—long, wide, level	3
Pin-bones—widely spaced, on level with hips	3
Thighs—incurving, escutcheon broad, extending well up on pin-bone	1
Tail—tapering, fine-boned, long and neatly set on, switch long	1
Hind legs—squarely placed, not sickle-hocked, bone fine	1

MAMMARY SYSTEM (35 Points):

Udder—large, quarters even and not cup up between, extending well up behind and well forward in front, not fleshy, soft and pliable	20
Teats—squarely placed, even in size, of convenient size for milking, free from lumps, not leaky or hard to milk	8
Mammary veins and wells—veins long, branching, tortuous, entering body well forward, wells large	7

Total.....100

GENERAL APPEARANCE

The dairy cow exhibits three well defined wedges when viewed from either the front, side, or top of back.

The front wedge is formed by a gradual widening of the forequarters from the withers to the chest floor. The side wedge is shown by the body being deeper from the hip points to the bottom of the udder than it is at the forequarters. A top view of the animal presents the third wedge by the body being wider at the hip points than at the withers.

Good illustrations of the front and top wedges are shown in Fig. 14.

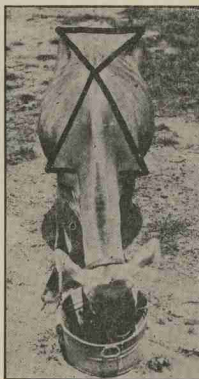


Fig. 14.—Showing Front and Top Wedges

Size.—Undersize is one of the chief defects found among Southern dairy cattle. Other things being equal, the larger the animal the better. Production and size usually go together. However, quality and size are not so closely correlated, so dairy-men usually try to select a happy medium.

Quality.—The skin should be thin, loose, and pliable, with a good secretion, bones medium-sized, covered with clean muscular tissue. A coarse dry skin is indicative of poor digestive and assimilative powers. A fine clean bone is always associated with quality and vigor. The flesh of the dairy cow should be muscular and free from fat while in milk.

Head.—The head should be lean and refined, with a broad

muzzle, large nostrils, and strong jaw. A bright, clear, prominent eye is desired, as it denotes an active nervous temperament. A strong, well muscled jaw is needed in masticating large quantities of feed. The face extends from the muzzle to the forehead, and should be of medium length and clean-cut. The forehead should be broad and dished, according to the demands of the breed.

Neck.—The neck of the cow should be medium in length, thin, free from coarseness, and neatly joined to the head and shoulders. The neck of the bull is quite different from that of the cow in that it is much heavier, with a well arched crest, denoting masculinity.



Fig. 15.—A Typical Dairy Type Shows Great Body Capacity

Forequarters.—The top of the shoulders or withers should be sharp, with the ends of the shoulder blades fitting close to the spinal processes, but somewhat below them. The chest should be broad and deep, indicating good constitution.

Body Capacity.—It is important that the back be straight and strong, as it has to support the weight of the abdomen. The ribs should be flat, spaced wide apart, and well sprung, but not as round in form as the ribs of the beef animal. The barrel should be broad, deep, and of medium length, not cut up in flanks, so as to be able to handle large quantities of feed.

The loin should be broad and straight, as a sag or drop in this region denotes weakness. See Fig. 15.

Hindquarters.—The hip bones should be wide apart and nearly level with the backbone. The rump should be long, level and wide. A sloping or short rump is often associated with ill-shaped udders. The pin bones should be wide apart and on a level with the hips. In order to give ample room for the udder, the thighs should be thin and incurving. The tail should be long, slim, with full switch, and attached on a level with the spinal column. The hind legs should be strong, wide apart, and placed squarely under the body.

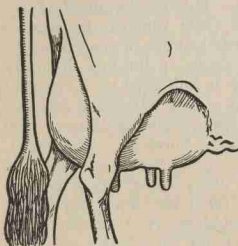


Fig. 16.—Well-balanced Udder

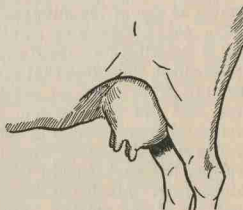


Fig. 17.—Deficient in Forequarters

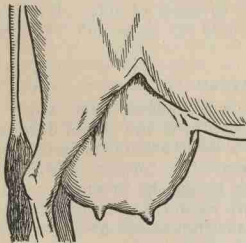


Fig. 18.—Pendulous Udder

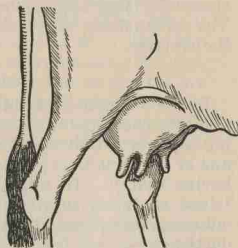


Fig. 19.—Funnel-shaped and Lacking in Capacity in Both Fore and Rear Quarters

Mammary System.—The udder is one of the most important parts of the dairy cow, therefore it should be closely examined when judging. It should be long from attachment in front to attachment in rear, level across the floor not pendulous, with medium-sized teats, squarely placed. It should be pliable, not meaty, with quarters well balanced. The milk veins should be large, long, crooked, and branched, entering the body through large wells.

JUDGING DAIRY BULLS

In judging the dairy bull the general appearance is first taken into consideration. He should be thoroughly masculine in character, having a bold appearance with the head carried somewhat high. In considering the head, the muzzle should be broad, nostrils open, eyes full and bold. The entire expression should be one of vigor, resolution and masculinity. The neck should be of medium length, with full crest at maturity and clean cut at throat latch with little or no dewlap. This development of the head and neck, which is so different from that of the cow, is known as one of the outstanding characteristics of masculinity.

The next outstanding point of importance in judging the dairy bull is constitution. Good constitution is indicated by a vigorous appearance, shoulders that are full and strong with good distance through from point to point, with well-defined withers; chest deep and full between and just back of forelegs. The heart-girth and barrel should be long and deep, with well sprung ribs. It makes no difference what breed of dairy bull is under consideration, the back should be straight from the shoulders to the tail setting. Much consideration should be given to the hind-quarters of the animal. The rump should be straight, of good length and reasonably wide between the hip bones. The hide should be loose and mellow with a covering of soft, silky hair. The rudimentary teats should be placed far apart and free from the scrotum.

JERSEY CATTLE

In the formation of this breed on the island, from which it takes its name, the work was conducted with the aim of developing an animal that would produce a large amount of butter fat and at the same time possess the greatest uniformity of type and bovine beauty. To establish these ideals the breeders on the Island of Jersey originated a score card for Jerseys in 1834, adhering very closely to type and the indications of butter production.

In form the Jersey is distinctly of dairy type, being lean and muscular, with clean-cut limbs and a large, well developed barrel. The head should be of medium size and fairly short, broad between the eyes and muzzle, with medium horns gracefully curving inward. The face should be dished, both in male and female, to a greater degree than with other breeds. The eyes of the cow are prominent, and with the bull full and bold. The neck is thin and long, with clean throat neatly joined to head and shoulders. The back of the Jersey should be straight with broad loins. The rump should be long and level, with smooth tail-setting. The

ideal udder is carried well forward, as well as high up behind. The color varies, but usually some shade of fawn predominates with black toigue and switch. White markings should not be discriminated against in the show ring.

In size the Jersey is the smallest of the dairy breeds. The standard weight of mature bulls is from 1,200 to 1,500 pounds, and cows from 900 to 1,100 pounds. Coarse heads, weak backs and rough tail-setting are objectionable and should be discriminated against.

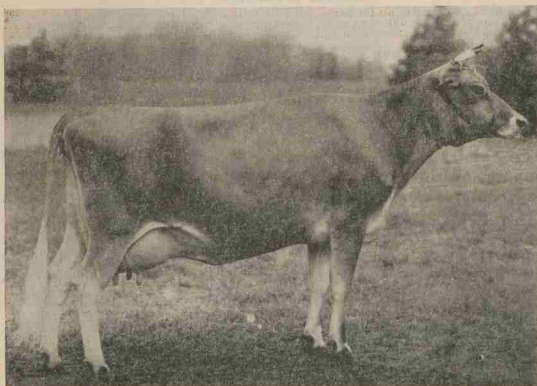


Fig. 20.—Jersey

SCALE OF POINTS FOR JERSEY COW

Approved by the Board of Directors of the American Jersey Cattle Club

	HEAD, 7	Counts
A—Shoulders light, good distance through from point to point, but thin at withers; chest deep and full between and just back of fore legs	3	5
B—Eyes full and placid; ears medium size, fine, carried alert; muzzle broad, with wide open nostrils and muscular lips; jaws strong	4	4
NECK, 4		
Thin, rather long, with clean throat, neatly joined to head and shoulders	4	4
BODY, 27		
A—Shoulders light, good distance through from point to point, but thin at withers; chest deep and full between and just back of fore legs	5	5
B—Ribs amply sprung and wide part, giving wedge shape, with deep, large abdomen, firmly held up, with strong muscular development	10	10
C—Back straight and strong, with prominent spinal processes; loins broad and strong	5	5
D—Rump long to tail-setting, and level from hip-bones to rump-bones	6	6
E—Hip-bones high and wide apart	3	3
F—Thighs flat and wide apart, giving ample room for udder	3	3
G—Legs proportionate to size and of fine quality, well apart, with good feet, and not to weave or cross in walking	2	2

H—Hide loose and mellow	2
I—Tail thin, long, with good switch, not coarse at setting-on	1
UDDER, 26	
A—Large size, flexible and not fleshy	6
B—Broad, level or spherical, not deeply cut between teats	4
C—Fore udder full and well rounded, running well forward of front teats	10
D—Rear udder well rounded, and well out and up behind	6
TEATS, 8	
Of good uniform length and size, regularly and squarely placed	8
MILK-VEINS, 4	
Large, long, tortuous and elastic, entering large numerous orifices	4
SIZE, 4	
Mature cows, 900 to 1,100 pounds	4
GENERAL APPEARANCE, 10	
A symmetrical balancing of all the parts, and a proportion of parts to each other, depending on size of animal, with the general appearance of a high-class animal, with capacity for food and productiveness at pail	10
TOTAL SCORE	100

HOLSTEIN-FRIESIAN

The Holstein-Friesian breed of cattle are black and white, in solid spots of each color. Black or white may predominate, either of which are not objectionable in the show ring. This is the largest dairy breed, and mature bulls weigh 1,800 to 2,000 pounds, and cows 1,300 to 1,600 pounds. The conformation of the Holstein-Friesian should be that of the dairy type, but with somewhat more thickness of thighs and smoothness of flesh than that of the Jersey. The head is inclined to be long and not dished as much as that of the Jersey. Good individuals have straight backs, long, level rumps and well-developed forequarters to the udder, as indicated by the illustration. Fig. 21.

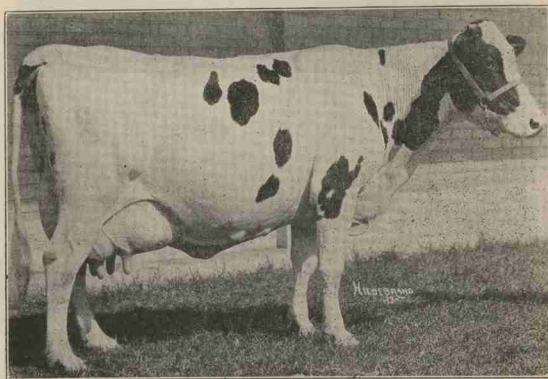


Fig 21.—Holstein-Friesian

SCALE OF POINTS FOR MATURE HOLSTEIN-FRIESIAN COW

The general appearance of the animal should be symmetrical and pleasing, typical of the breed. Deductions for lack of these characteristics up to 10 points may be made from the general score of the parts. Typical breed weight should be from 1,300 to 1,600 pounds, depending on condition and period of lactation.

	Points
Forehead—Broad between the eyes; dishing	2
Face—Of medium length; clean cut; feminine; the bridge of the nose straight	1
Muzzle—Broad, with strong lips; nostrils large and open; jaws strong	3
Ears—Of medium size; of fine texture; well carried	1
Eyes—Large; full; mild; bright	2
Horns—Small; tapering finely toward the tips; set moderately narrow at base; inclining forward; well curved inward; not to be discounted if neatly dehorned	1
Neck—Long; fine and clean at junction with the head; evenly and smoothly joined to shoulders	3
Shoulders—Slightly lower than the hips; moderately broad and full at sides running to a wedge at the top blending smoothly into the neck and the middle	3
Crops—Full; level with the shoulders	4
Chine—Straight; strong; broadly developed, with open vertebrae	3
Loin and Hips—Broad; level or nearly level between the hipbones; level and strong laterally; spreading from chine broadly and nearly level; hipbones fairly prominent	6
Rump—Long; broad with roomy pelvis; nearly level laterally; full above the thurls; carried out straight to tail head	6
Pinbones—Wide between; nearly level with hips	2
Thurls—High; broad through	2
Tail Head and Tail—Strong at base without coarseness; the setting well back; tail long, tapering finely to a full switch	2
Chest—Deep; wide; well filled and smooth in the brisket; broad between the forearms; full in the foreflanks	6
Barrel—Long; deep; well rounded; strong and trimly held up	9
Flanks—Deep; full	2
Thighs—Wide; deep; straight behind; wide and moderately full at the outsides; twist well cut out and filled with development of udder; with escutcheon well defined	2
Mammary Veins—Large; tortuous; entering large orifices or double extension; with additional developments, such as branches and connections entering numerous orifices	6
Udder—Capacious; flexible; quarters even and of uniform texture; filling the space in the rear below the twist; extending well forward; broad and well attached	20
Teats—Well formed; plumb; of convenient size; properly placed	4
Legs—Medium length; clean; nearly straight; wide apart; firmly and squarely set under the body; arms wide, strong and tapering	4
Hair and Hide—Hair healthful in appearance; fine and soft; hide of medium thickness; mellow and loose	6
TOTAL	100

GUERNSEY CATTLE

The Guernsey breed of cattle resemble Jerseys, but are usually yellowish, reddish or orange fawn in color. The Guernsey may be solid in color, but they usually have a white switch and white legs. White spots are very common on any part of the body. They should have a flesh or cream-colored nose. The standard weight is about 1,500 pounds for mature bulls and 1,050 for mature cows. Their heads are rather plain, and the shoulders are inclined to be rough. The yellow secretions of the skin are important, and are found in the ears, udder, flanks and tip of tail. The nature of secretion on the animal is an indication of the color of milk they will produce. If the secretions are highly colored and abundant, this is supposed to indicate that highly colored milk will be produced.

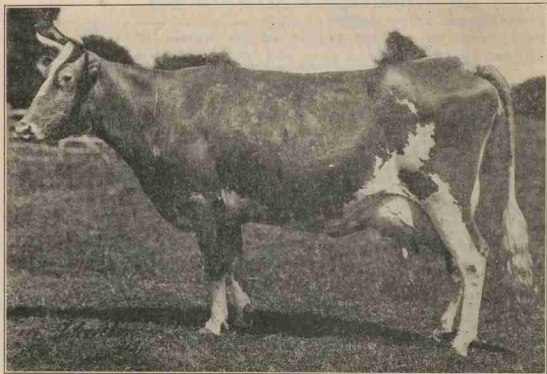


Fig. 22.—Guernsey

SCALE OF POINTS FOR GUERNSEY COW

	Points
Style and Symmetry —Attractive individuality revealing vigor, femininity and breed character; a harmonious blending and correlation of parts, an active well-balanced walk	5
The recognition of this style and symmetry comes only from long associations with dairy cattle. Under this heading is included an acceptance of that correlation of parts which goes to produce an animal that combines beauty and efficient production.	
Head —Moderately long, clean-cut, showing femininity and breed character; a lean face; wide mouth and broad muzzle with open nostrills; strong jaw; full bright eyes with gentle expression; forehead broad between the eyes and moderately dishing; bridge of nose straight	5
The clean-cut head indicates an abundant dairy quality and the lack of excess tissue such as is found in the beef animal. A full bright eye with gentle expression denotes a placid disposition, which is a very valuable adjunct in dairy work. The strong muzzle and jaw are indications of great feeding capacity. The wide-open nostrills indicate large respiratory organs which must accompany large digestive capacity. While only five points are allowed for the head, it is truly indicative of poise, intelligence and dairy capacity.	
Horns —Yellow, small at base; medium length; inclining forward; not too spreading	1
The size and quality of the horn shows much of breed quality. The horn should incline forward, but considerable latitude should be given for shape. They should always be in such proportion to the head as will add to the attractiveness of the animal.	
Neck —Long and thin; clean throat, smoothly blending into shoulders	2
A clean neck adds to the beauty of the animal and to her dairy quality. The neck should blend into the shoulders with the least possible depression.	
Withers —Chine rising above shoulder blades, with open vertebrae	2
The chine rising above the shoulder blades and the open vertebrae marks the difference between dairy type and beef type which is easily discernible in the character of the withers. In heifers this same structure is imperative but if well along in pregnancy allowance may be made for a covering of fatty tissue. This covering will disappear after calving and as lactation progresses.	
Shoulders —Shoulder blades set smoothly against chine and chest wall, forming neat junction with the body	2
Shoulder blades loosely attached to the chine and chest wall often become winged, thus undesirably affecting the beauty and strength of the animal.	
Chest —Wide and deep at heart with least possible depression back of shoulders	4
The forelegs should be set sufficiently wide apart so that with a deep chest ample lung capacity is provided for efficient production	
Back —Appearing straight from withers to hips	5
A straight, level back adds, not only to the beauty of the animal, but also to her strength. Conversely, a sway back indicates weakness.	
Loin —Strong, broad, and nearly level laterally; width carried forward to junction with the ribs	3
A strong, straight loin, like a straight back, is an element of strength as well as of beauty. Heifers should be especially strong in the loin.	
Hips —Wide, approximately level with the back; free from excess tissue	2
The wide, clean-cut hips combined with the broad, level loin and rump indicates strong feminine character.	
Rump —Long, continuing with level of the back; approximately level between hip bones and pins. Pins well apart	4
Length and levelness of rump are usually associated with length and levelness of udder. The properly formed rump provides ample room for the productive and reproductive organs and adds to the beauty and symmetry of the animal.	
Thurls —Wide apart and high	2
Wide thurls, combined with the proper structure of loin, hip, and rump, also add room to the needed capacity of the pelvic region.	
Barrel —Deep and long with well-sprung ribs. Individual ribs: Long, flat, wide apart, and free from excess tissue	10
This structure of the ribs gives the maximum abdominal capacity. While a well sprung rib is desired, it is not wanted at the expense of the depth of the body. The ideal dairy type has the greatest width of body slightly lower than the center, and also lower than in the beef type. Wide spacing between the ribs is desirable; first, because it is associated with general openness of conformation and freedom from excess tissue, thus denoting dairy character, and secondly, because it gives greater abdominal capacity in proportion to the live weight. This structure is especially evident in the distance between the last two ribs and the spread between the last rib and the hip.	

Thighs —In-curving when viewed from side, thin and wide apart when viewed from rear; well cut up between the thighs The thin thigh indicates dairy quality while a thick thigh denotes a tendency towards beefiness.	2
Legs —Flat flinty bone, tendons clearly defined; front legs straight; hind legs nearly upright from hock to pastern, set wide apart and nearly straight when viewed from behind. Pastern: Strong and springy A straight leg squarely set under the body and with a strong pastern prolongs the usefulness and improves the style and carriage of the animal.	2
Skin —Loose and pliable, and not thick, with oily feeling; hair, fine and silky A skin of this character is associated with dairy quality and with the thrift and health of the animal.	3
Tail —Long, tapering with neat, strong, level attachment, neatly set between pin bones; fine bone and hair; nicely balanced switch	2
Udder —Uniformly fine in texture; free from meatiness; covered with pliable velvety skin.... Veins prominent Attachment to body; strong, long, and wide Extending well forward; extending well up behind Sole: level between teats Teats: of even convenient size; cylindrical in shape; well apart and squarely placed, plumb	3 1 4 2 4 3
The quality of the udder is apparent in the elasticity, fineness and abundance of skin in the rear attachment. In case of helpers, emphasis should be placed with proper placement and size of teats rather than on the meaty fullness extending to the front and rear. A strong attachment of the udder to the body is necessary to assure the carrying of the udder close to the body so that it may avoid the liability of injury and the likelihood of being soiled. The squarely placed, plumb teats of even, convenient size add greatly to the beauty of the animal, and to the convenience in milking. The high rear attachment of the udder emphasizes dairy quality.	
Mammary Veins —Long, tortuous, prominent and branching with large numerous wells The mammary veins found on both sides of the abdomen are an indication of milk producing tendencies. They are the major part of the veining system that carries the blood from the udder back to the heart and lungs. A well-developed network of these veins denotes that a large quantity of blood has supplied the milk secreting glands. The mammary veining system is developed in varying degrees with each lactation period. The extension of veins on the chest double branching, and a center vein are degrees of development generally found only in the mature animal, but may be indicated in the case of a heifer. A network of veins on the surface of the udder indicates a higher development of the circulatory system in the udder	3
Secretions Indicating Color of Product —Indicated by the pigment secretion of skin which should be a deep yellow inclining toward orange in color; especially discernible at the ear, at the end of bone of tail, around the eyes and nose, on the udder and teats, and at the base of horns; hoofs and horns amber color There is a very close relationship between the color of the skin, the color of the internal fat, and the milk and butter from a cow. This is a very valuable commercial characteristic of the Guernsey which should be preserved. The wish to particularly emphasize this characteristic is the reason for allowing 20 points under this heading.	20
Color Markings —A shade of fawn with white markings Guernseys vary widely in color from the lightest shades of fawn to the darker or reddish shade of fawn. While all these colors are recognized, the most desired color is the medium shade of fawn with white shield in the forehead, white over shoulders and hips, with white belly, legs, switch, and with buff nose.	2
Size —Mature cows about 1100 pounds in milking condition	2
Total points.....	100

Mature Guernsey cows vary in weight from 800 to 1400 pounds, and the bulls vary from 1200 to 2200 pounds, but the weights preferred by the most breeders are approximately those mentioned in the score card. By milking condition is meant that state of flesh in which cows are commonly found under good dairy farm conditions after they have been in milk from three to six months.

AYRSHIRE

The Ayrshire breed of cattle is red-brown and with white markings with the white generally predominating. The shade of brown varies from a light shade to a mahogany or almost black. The size of the Ayrshire is about the same as that of the Guernsey. Mature bulls should weigh not less than 1,500 pounds, and cows not less than 1,000 pounds. The horns are wide set, inclining upward, and are larger and longer than those of any of the other dairy breeds. In judging Ayrshires there are three important points to bear in mind: First, the back should be absolutely straight; second, the head should be carried a little higher than the back line; third, the udder should show no indications of being pendulous. The floor of the udder should be but slightly lower than the belly line.

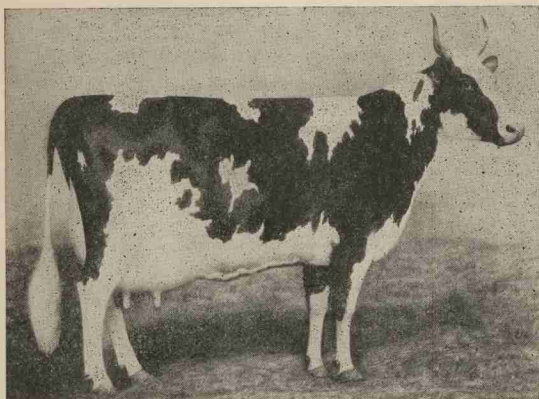


Fig. 23.—Ayrshire

INSTRUCTIONS FOR SCORING AYRSHIRE FEMALES

HEAD (9 Points):	Points
(Or individual parts of head may be scored as follows:)	
Forehead—reasonably broad between the eyes, and slightly dished	1
Face—of medium length, clean cut feminine; the bridge of the nose straight to nostrils	1
Muzzle—broad and strong, with large open nostrils	2
Jaws—wide at the base, well muscled and strong	1½
Eyes—moderately large, placid, full and bright	1½
Ears—medium size, fine and carried alertly	1½
Horns—small at base, not coarse nor too long; inclining upwards	1½
(An animal that has been cleanly and neatly dehorned, and whose head shows true Ayrshire character shall not be penalized.)	
NECK (2 Points):	
Medium length, smoothly blending with shoulders and throat, showing feminine refinement	2
SHOULDERS (5 Points):	
Long, sloping and tapering from the base to the top of the shoulder blades; neatly and firmly attached to the body wall. Tops of the blades not extending to the top of chine	5
CHEST (5 Points):	
Full, and wide between and back of fore-arms. Brisket light and refined	5
CHINE (3 Points):	
Straight, strong, open jointed, narrow at the top, nicely blending into shoulders and a well sprung rib	3
CROPS (4 Points):	
Full, level with shoulders	4
BARREL (10 Points):	
Medium length, deep, but strongly held up; rib, well-sprung, bones long, flat and wide apart	10
LOIN (4 Points):	
Broad, strong and level with hips	4
RUMP OR PELVIC AREA (12 Points):	
Wide, long and roomy; top-line extending level from loin to and including tail-head....	12
Hips—wide, with points rather sharply defined and level with back-line.	
Pin-bones—wide apart and nearly level with hip bones; well defined, not overlaid with fat.	
Thurls—broad and set slightly below line from hip-points to pin-bones.	
Tail-Head—level with back line, neatly molded, and showing no evidence of roughness.	
TAIL (1 Point):	
Long and fine with full switch	1
FLANK (1 Point):	
Deep, slightly arched and refined	1
THIGHS (2 Points):	
Deep, straight and trim when viewed from the side. Flat and broad on sides. Twist or inside of thighs well cut out for udder development, with escutcheon well defined and carried high	2
LEGS AND FEET (8 Points):	
Widely and squarely set under body; clean flat bone, front legs straight; hind legs nearly straight when viewed from rear. Hocks and pasterns neatly and firmly molded. Feet round with plenty of depth at heels	8
HIDE AND HAIR (4 Points):	
Mellow, elastic hide of medium thickness. Hair fine and soft	4
MAMMARY SYSTEM (30 Points):	
(Or individual parts of mammary system may be scored as follows:)	
Size and Shape of Udder—broad, level capacious, extending well forward and high behind, quarters even and of uniform size. Floor of udder should be reasonably level, and not deeply cut up between the quarters	10
Attachment of Udder—attached well forward with a neat and firm junction at body wall; carried wide and high behind, no evidence of breaking of tissues supporting front quarters nor dropping of floor of udder	6
Texture of Udder—fine, soft and pliable, with light skin	4
Size, Shape and Placement of Teats—convenient size, symmetrical and nearly uniform, each hanging perpendicularly under the quarter. Funnel-shaped teats objectionable	5
Veining and Milk Wells—Mammary veins large, long, tortuous, branching and entering large or numerous milk wells. Small veins clearly defined on udder	5
TOTAL	100

JUDGING SWINE

By W. W. SHAY and EARL H. HOSTETTLER.

In judging swine the preëminent consideration that must be kept in mind is the "pork barrel," or, in other words, the butcher's viewpoint. Because, whether hogs are being judged as breeding animals or market hogs, the ultimate end of each and every hog is for human consumption, either directly or indirectly. However, in judging hogs from a breeding or feeding standpoint, there are certain things that must be taken into consideration that are of no value to the butcher. For instance, with breeding animals it is necessary to keep in mind the breed characteristics of the breed that is being judged, and from both the breeder's and feeder's standpoint an animal must have plenty of bone, a good back and feet, and must not be lacking in constitution and vigor.

Stand well away from the animal to be judged. From the side note contour of back, pasterns, and heart-girth, and straightness of legs. From either the front or rear observe spring of rib, fullness of loin, and straightness of legs. Notice, also, the ear, eye, feet, fullness of ham, etc., as you pass around the hog.

A glance at the score card will show us that the butcher is being considered, since the first five points include 55 percent of the total value. These points include back, loin, ham, sides, and ribs representing 33 percent, and feet, legs and heart-girth representing 22 percent. The parts included in the 33 percent are the most valuable cuts from a butcher's standpoint, while the other 22 percent is necessary from the breeder's and feeder's standpoint in order to produce the kind of hogs that will please the butcher.

BREED CLASSIFICATION

There are two distinct types of hogs produced in the United States, and they are known as the lard type and the bacon type. The lard type was developed in this country although one of the breeds, the Berkshire, originated in England. The animals belonging to this type have a tendency to produce more fat than those of the bacon type, but there is less difference in this respect now than formerly, particularly if both types are full fed under the same conditions. The breeds that are quite numerous and have proven satisfactory in North Carolina are: *Lard type*—Berkshire, Duroc, Hampshire, and Poland China; *Bacon type*—Tamworth.

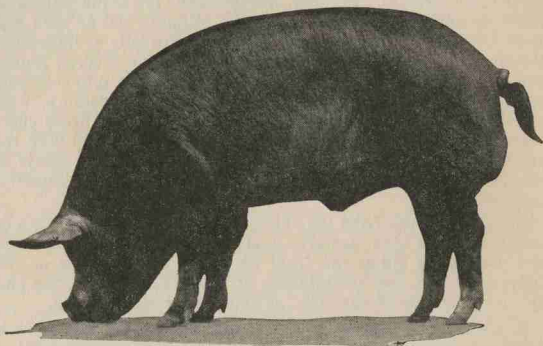
BERKSHIRE—Lard Type

Fig. 24.—Berkshire

Origin—Berkshire and Wilts Counties, England. The Berkshire is the oldest of our modern breeds and has been used extensively in the development of most of the other breeds of swine in this country.

Color—Black, white permissible on feet, legs, face, and tail.

Characteristics—Ears erect, face dished.

Number—1930 Census, North Carolina, 629; United States, 8,423.

Registration—American Berkshire Association, Springfield, Illinois.

DUROC—Lard Type

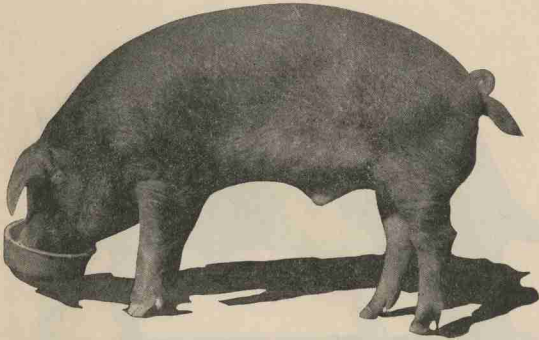


Fig. 25.—Duroc

Origin—New York and New Jersey.

Color—Solid red.

Characteristics—Ears drooping, face slightly dished. The Duroc is quite similar in conformation to the Poland China and gained its greatest popularity during the time that Poland China breeders preferred the small type or "hot bloods."

Number—1930 Census, North Carolina, 2,001; United States, 116,942.

Registration—United Duroc Record Association, Peoria, Ill.

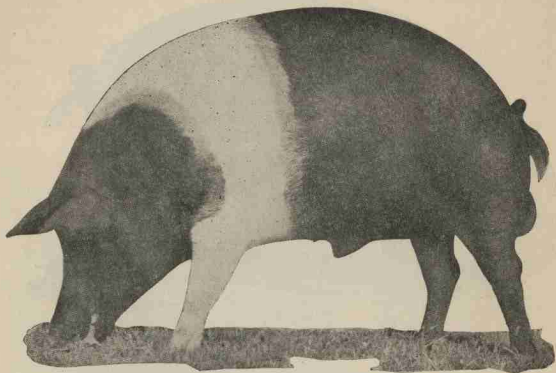
HAMPSHIRE—Lard Type

Fig. 26.—Hampshire

Origin—Foundation animals are said to have been imported from England, but early development and foundation of present characteristics occurred in Kentucky. The name Hampshire was adopted in 1904, but in England a similarly “belted” pig is known as the Wessex Saddleback.

Color—Black with a white belt entirely encircling the body, including both forelegs.

Characteristics—White belt over shoulders, erect ears inclined slightly outward and forward.

Number—1930 Census, North Carolina, 391; United States, 30,740.

Registration—The Hampshire Swine Record Association, Peoria, Illinois.

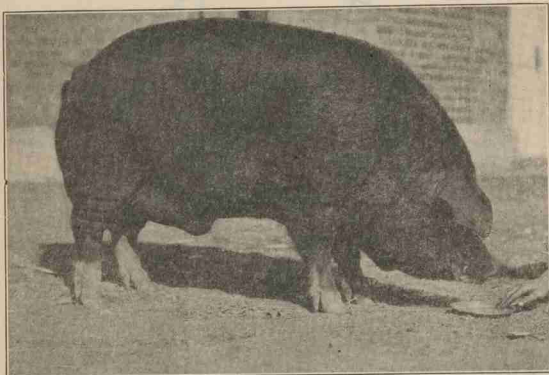
POLAND CHINA—Lard Type

Fig. 27.—Poland-China

Origin—Miami River Valley in southwestern Ohio.

Color—Black, usually with some white on feet, legs, face and tail. Occasional white spots are also found on the body.

Characteristics—Ears drooping, face straight.

Number—1930 Census, North Carolina, 1,184; United States, 110,284.

Registration—(a) American Poland China Record Association, Chicago, Ill.; (b) National Poland China Record Association, Winchester, Ind.; (c) Standard Poland China Record Association, Maryville, Mo.

TAMWORTH—Bacon Type

Origin—This is one of the oldest breeds of swine and was developed in Staffordshire, England, although its exact origin is unknown.

Color—Solid red.

Characteristics—Erect ears, narrow face, deep sides.

Number—1930 Census, North Carolina, 20; United States, 2,758.

Registration—American Tamworth Swine Record, Ames, Iowa

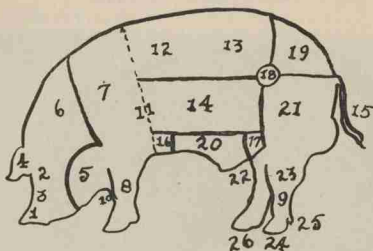


Fig. 28.—Showing Parts of Hog

(Names of different parts as marked and numbered in outline)

1. Snout	6. Neck	11. Chestline	16. Fore flank	21. Ham
2. Eye	7. Shoulder	12. Back	17. Hind flank	22. Stifle
3. Face	8. Foreleg	13. Loin	18. Hip	23. Hock
4. Ear	9. Hindleg	14. Side	19. Rump	24. Pasterns
5. Jaw	10. Breast	15. Tail	20. Belly	25. Dewclaws
				26. Foot

A study of the above outline chart will enable the student to locate the various parts by name. A "swirl" is a spot usually on the back or side of the hog where the hair grows irregular, giving the appearance of a whirlpool in water. The "twist" is that part on the inside of the hind leg between the hock and ham. All other parts mentioned in the score are shown in the chart.

SHOWING IMPORTANCE OF PERCENTAGE

No.		Points			
1.	Back and Loin	14	26%	Average 11.0	
2.	Chest-Heartgirth	12			
3.	Ham and Rump	10	29%		
4.	Feet and Legs	5			
5.	Sides and Ribs	9			
6.	Size for Age	7	13%	Average 3.0	
7.	Shoulders	6			
8.	Head and Face	4	17%		
9.	Belly and Flank	4			
10.	Coat	3			
11.	Action and Style	3			
12.	Symmetry of Points	3	15%		
13.	Eyes	2			
14.	Color	2			
15.	Ears	2			
16.	Neck	2			
17.	Condition	2			
18.	Disposition	2			
19.	Jowl	2			
20.	Tail	1			
Average 5 points.....		100			

1 to 5 (55%), Of prime importance.

6 to 12 (30%), Important.

1 to 12 (85%), Ordinarily deciding factors.

13 to 20 (15%), Seldom of sufficient comparative importance to influence decision.

SCORE CARD

	Points	
	Lard	Bacon
1. BACK AND LOIN—Broad, arching, carrying full width from shoulder to ham, evenly fleshed, smooth	14	12
2. CHEST-HEARTGIRTH—Large, wide, deep, full, wide between the legs, at least flush with back and belly lines, large heartgirth	12	10
3. HAM AND RUMP—Broad, full, long, wide and deep, fleshed well down to hock, buttock full, rump same width as back, nicely rounding slope from loin to root of tail	10	10
4. FEET AND LEGS—(a) Legs—medium length, straight and strong, nicely tapering, good sized bone, well muscled	4	4
(b) Feet—pasterns nearly upright, short, hoof short, tough, straight, animal well up on toes	5	4
5. SIDES AND RIBS—Full, smooth, deep, long, carrying even width of ham and shoulder, free from wrinkles, ribs well sprung and long	9	12
6. SIZE—Large for age. Boars two years and over, not less than 600 lbs.; sows same age, 500 lbs.	8	8
7. SHOULDERS—Moderately broad, deep, full, not extending above line of back, carrying thickness down to belly line	6	6
8. HEAD AND FACE—Broad between the eyes, neat, dished according to breed	4	5
9. BELLY AND FLANK—Straight, same width as back, full to lines of sides, flank well down to lower side-line, girth similar to heartgirth	4	4
10. COAT—Fine, smooth, straight, free from swirls, covering the body evenly	3	3
11. ACTION AND STYLE—Graceful, good carriage and action	3	3
12. SYMMETRY OF POINTS—Adaptation of all the points for desired type	3	3
13. EYES—Large, bright and open, free from wrinkles or overhanging fat	2	2
14. COLOR—According to breed, either cherry red or black and white	2	2
15. EARS—Not too large or coarse, drooped or erect according to breed	2	2
16. NECK—Short, deep, wide and nicely tapering to shoulder	2	3
17. CONDITION—Healthy and mellow, evenly fleshed	2	2
18. DISPOSITION—Quiet, gentle, easily driven or handled	2	2
19. JOWL—Smooth, full, firm, neat, carrying fullness back to brisket and point of shoulders	2	2
20. TAIL—Nicely fleshed at base, tapering, not extremely light or heavy	1	1
Total	100	100

Indicate the number of points deficient, total, and subtract from 100.

OBJECTIONS

1. **BACK AND LOIN**—Swayed or flat, humped, narrow, creasing back of shoulders, uneven width.
2. **CHEST-HEARTGIRTH**—Pinched appearance at top or bottom, tucked in back of forelegs, too narrow between forelegs, not sufficient depth of shoulders, brisket too narrow or not prominent.
3. **HAM AND RUMP**—Hams narrow, short, not projecting well down to hock, too much cut up in crotch or twist, rump steep, narrow, peaked at root of tail.
4. **FEET AND LEGS**—Legs extremely long, too short, slim, coarse, crooked, not nicely tapering, pasterns long, crooked, slim, hoofs long, crooked, spread.
5. **SIDES**—Shallow, creased, shrunken at shoulder or ham, not carrying proper width from top to bottom, ribs too short, not well sprung.
6. **SIZE**—Undersized, rough, coarse, lacking in feeding qualities.
7. **SHOULDERS**—Deficient in width or depth, extending above line of back, width beyond line of sides and hams, shields on boars too coarse and prominent.
8. **HEAD**—Too large, coarse, narrow between the eyes, too long or too short or exceedingly dishd.
9. **BELLY AND FLANK**—Narrow, sagging, flabby, flank tucked up, much less than heartgirth.
10. **COAT**—Bristles, swirls, hair coarse, thin or standing, not evenly distributed over body except belly.
11. **ACTION AND STYLE**—Dull, sluggish, awkward.
12. **SYMMETRY OF POINTS**—Lack of proportion.
13. **EYES**—Small, deep set, surrounded by wrinkles or overhanging fat.
14. **COLOR**—Duroc: Very dark red or shady brown; very light or pale red; black or white spots or flecks. Poland-China and Berkshire: White and black hair mixed, making a grizzly appearance. Hampshire: White on hind legs, or extending more than one-third length of body; solid black.
15. **EARS**—Too large, coarse, round, too swinging or flabby, unequal in size, not under control, erect. **Exception:** Berkshires, Tamworth and Hampshires in the last mentioned point.
16. **NECK**—Narrow, thin, long, not extending down to breast bone.
17. **CONDITION**—Hair harsh to touch, unthrifty, scales, sores, mange, unevenly fleshed, lumpy.
18. **DISPOSITION**—Cross, restless, quarrelsome, wild or vicious, not easily handled or driven.
19. **JOWL**—Rough and deeply wrinkled, too large and loose or flabby, not carrying fullness back to shoulders.
20. **TAIL**—Too long and ropey, extremely light or heavy, straight.

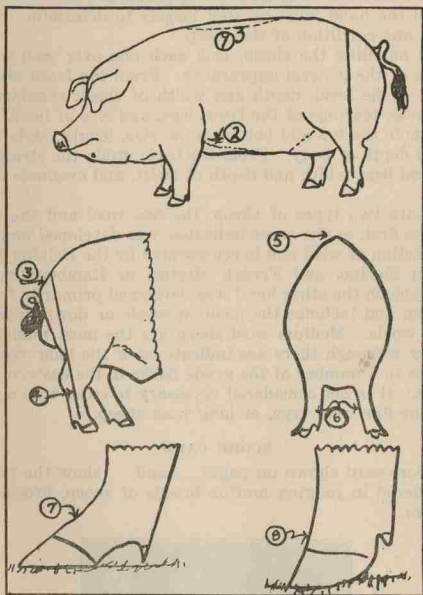


Fig. 29

- No. 1. "Sway-backed," depression back of shoulders.
- No. 2. Deficient in heartgirth.
- No. 3. Steep rump.
- No. 4. Crooked hind leg.
- No. 5. "Fish-backed," deficient in spring of rib.
- No. 6. Crooked front legs.
- No. 7. Weak pastern, long and sloping.
- No. 8. Good pastern.

JUDGING SHEEP

By J. E. FOSTER and L. I. CASE.

Sheep are much more difficult to judge than other animals, due to the fact that the weak and strong points are covered up with wool, and the hand must be used largely to determine in detail the form and condition of the sheep.

Before handling the sheep, look each one over well to get a good idea of the general appearance. From the front study the make-up of the head, depth and width of chest, shoulders, and straightness, placings of the front legs, and size of bone. From the side note the top and bottom lines, size, length, style, blockiness, and depth of body. From the back, study the straightness of the hind legs, width and depth of twist, and evenness of body width.

There are two types of sheep, the fine wool and the mutton type. The first, as the name indicates, was developed mainly for the production of wool and is represented by the Delaine Merino, American Merino, and French Merino, or Rambouillet. The mutton type on the other hand was developed primarily for meat production and includes the medium wools or down breeds and the long wools. Medium wool sheep are the most numerous in this State, although there are indications of the long wool characteristics in a number of the grade flocks in the eastern part of the State. It is not considered necessary to enter into a discussion of the fine wool type, or long wool sheep.

SCORE CARD

The score card shown on pages ___ and ___ show the points to be considered in judging mutton breeds of sheep, breeding and fat classes.



Fig. 30.—Examining width, length of head, clearness of eye, size of muzzle and nostrils.

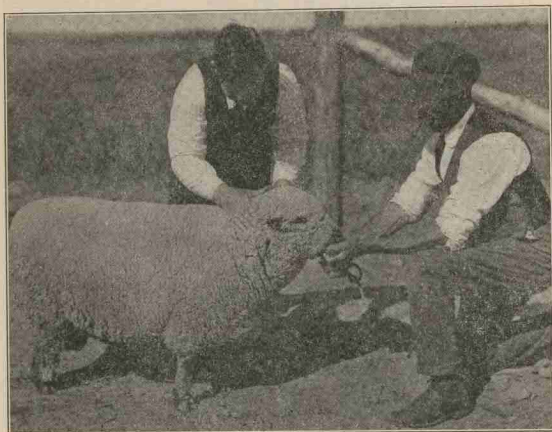


Fig. 31.—Determine shortness, fullness, depth and size of the neck.

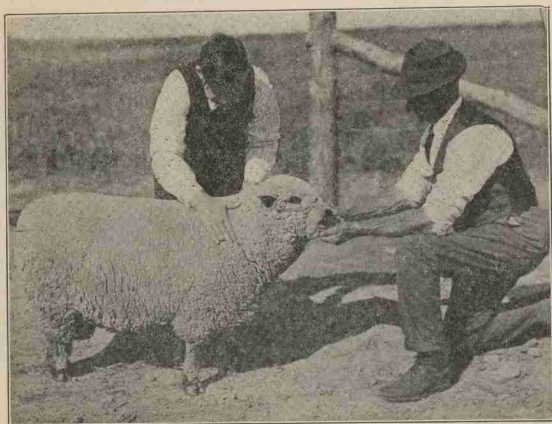


Fig. 32.—Examine width, smoothness, covering of shoulders and shoulder vein

A perfect sheep should score 100 points. The beginner should study the score card carefully and use it on several sheep in order to become familiar with the location of the different parts and learn to describe them by their proper names.

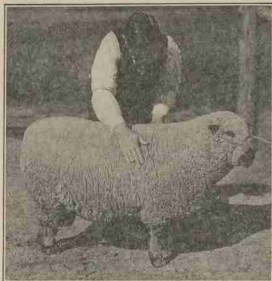


Fig. 33.—Not width of heartgirth and spring of rib

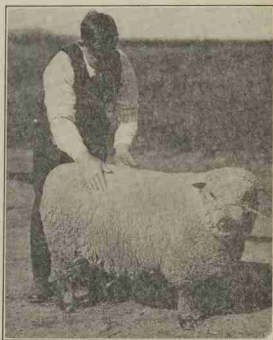


Fig. 34.—Examine loin for width, length, strength, thickness and evenness of flesh

Handling Sheep While Judging.—The proper way to handle a sheep is to keep the fingers close together and lay them flat on the animal. This will enable one to get a better idea of the form, and

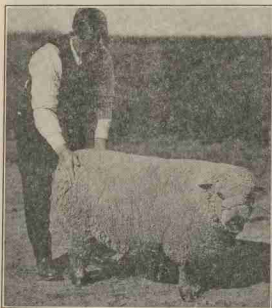


Fig. 35.—Note the degree to which the width of body is carried out, the depth and firmness of flesh covering

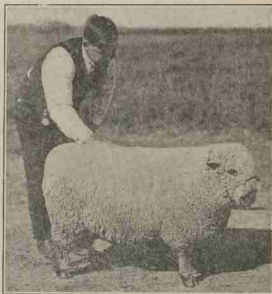


Fig. 36.—Determine the strength of back, depth, evenness, firmness of fleshing, compactness of shoulders by keeping fingers close together and moving a little at a time from rump to shoulders

will not make so many unsightly depressions in the fleece as it will to handle them with the fingers wide apart. However, it will be necessary to grasp the hind legs with fingers open. Do not handle sheep roughly. Some prefer to commence handling the sheep at the head, others at the rear. However, there are no special rules to conform to in judging.

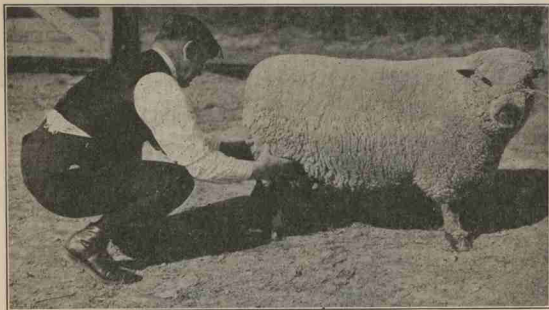


Fig. 37.—Examine size of leg of mutton by grasping the leg with both hands

Age.—The age of sheep may be determined by the teeth. Sheep have eight permanent front teeth (nippers or incisors) in the lower jaw by which the age is determined. There are no upper front teeth. Lambs develop teeth soon after birth, which are



Fig. 38.—Note depth and fullness of twist

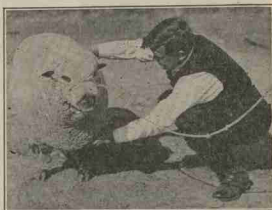


Fig. 39.—Measure depth of chest from the side just behind front leg

narrow and white and are called baby or milk teeth. As the sheep grows older, these are replaced with permanent teeth, which are larger and broader, widening out towards the top.



Fig. 40.—Note the width of the floor of the chest and prominence of brisket



Fig. 41.—Examine size of bone and fineness of hair as indication of quality



Fig. 42.—Examine sides for rolls of tallow, which indicates over-feeding

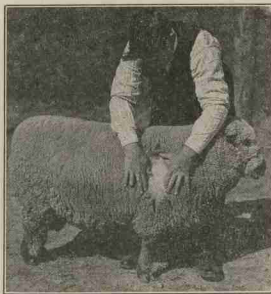


Fig. 43.—Open fleece on shoulder and sides to examine quality, quantity and condition of wool and pinkness of skin. Look for spotted skin and black hair



Fig. 44.—Open fleece on thigh to examine fleece and skin

The first pair of permanent teeth appear in the center of the lower jaw when the lamb is about one year old. The next pair, one on each side of center pair, appear at two years; the third pair at three, the fourth at four, and at five years they are fully developed. When the sheep is from six to nine years of age the teeth become more round in shape and worn, and begin to drop out, at which time the sheep is called broken mouthed. This condition is dependent somewhat on the feed and pasture they have had, and on the breed and individuality of the sheep.

In examining the teeth, hold the sheep with one hand under the jaw and press the lower lip down with the first and second fingers.



DESCRIPTION OF MUTTON SHEEP

Market Classes.—Market sheep may be classed as follows: mutton sheep; lambs, yearlings, wethers, ewes, bucks, and stags; feeder sheep; lambs, yearlings, wethers, and ewes; breeding sheep; ewes and rams.

Market sheep are all sheep that are sold on the livestock markets.

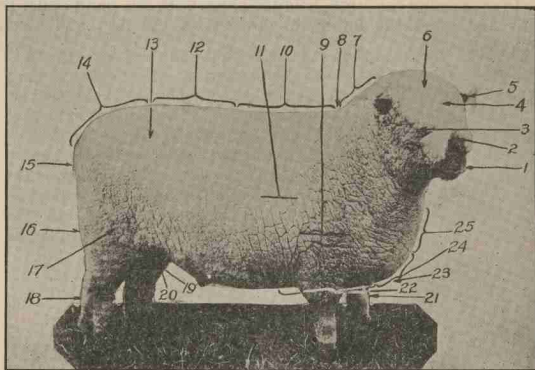


Fig. 45.—The External Parts of Mutton Sheep

1. Muzzle, should be broad, lips thin, nostrils large.
2. Face, short, features clear cut.
3. Eyes, large and clear.
4. Forehead, broad.
5. Ears, alert, not coarse.
6. Poll, wide.
7. Neck, short, thick, blending smoothly with shoulders.
8. Shoulders, compact, not too pointed or open.
9. Shoulders, thickly covered with flesh.
10. Back, broad, straight, evenly and thickly covered with firm flesh.
11. Ribs, long, well sprung and thickly covered.
12. Loin, broad, thick and well covered with flesh.
13. Hips, wide and smooth.
14. Rump, long, level and wide to dock.
15. Dock, or tail thick.
16. Twist, firm and deep.
17. Thighs, deep, full and wide.
18. Legs, short, straight, large bone and smooth.
19. Cod, or purse in wethers, udder in ewes, and scrotum in rams.
20. Flank, deep and full.
21. Forelegs, short, straight, strong bone and smooth.
22. Chest, deep, wide and full.
23. Forelegs, wide apart, forearm strong.
24. Brisket, extending well forward, full, wide and rounding in outline.
25. Breast, well extended.

General Appearance—Form.—The mutton type of sheep is analogous in form to the beef steer. The one chief difference in judging the sheep from that of other meat-producing animals is in the wool, which will be considered later. The nearer the form the mutton sheep approaches the established meat-producing type, the more valuable it is to the butcher. The same characteristics should be considered, therefore, as in other animals. The form should be square, compact, and the animal low set. The body should be long, broad, and deep. This should be the result of long, well sprung ribs, closely spaced, thus giving width, depth, length, and compactness of form. The head should be broad and full, the neck short and compact, blending smoothly into the shoulder. The shoulders should be broad, smooth over the top, and full and compact over the sides. In the region of the heart the form should be full and the chest deep. The back should be straight, carry out well to the tail-head, and be parallel with the underline. The legs should be straight and strong.

Quality is usually in evidence about the head, which should be clear in outline and free from any indication of coarseness. A plain head, large, drooping ears, a heavy muzzle, and a coarse, open fleece show objectionable quality. The shoulders should be smooth, the joints clean in outline, and the bone hard and refined in appearance. A fleece of fine quality, free from kemp and hairs, with fine hair on the face, ears, and legs is also indicative of quality. In general, the animal should show clean, trim features, and a form devoid of excessive waste. The skin should present a bright, pink, healthy appearance.

Condition, or the amount of fat possessed is one of the first qualifications required by the buyer of slaughter stock. Sheep should be highly fitted for the market, although they should never be overdone, as a soft, blubbery carcass is inferior from the butcher's standpoint. A sheep in prime condition for the butcher is smooth, firm, and uniform in fat covering. Judges usually test the condition by grasping the animal with one hand over the region of the back, loin, and ribs or at the dock. A full, firm, even condition of these parts is indicative of proper finish.

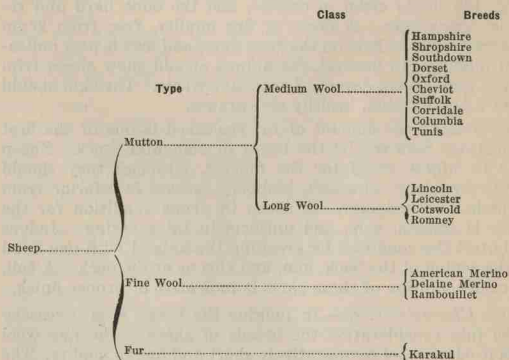
Fleece Characteristics.—In judging the fleece, it is necessary to take into consideration the breeds of sheep. The fine wool breeds produce wool comparatively short and fine in quality. The crimp is close and the yolk excessive. The medium wool or mutton breeds produce wool of average length and fineness. The long-wool breeds produce a long and rather open fleece, which hangs in spirals or ringlets.

The quality of the fleece is determined by the fineness of the fibre, the closeness of the crimp and softness or pliability of it.

A good fleece is sound, indicating no weak spots in the wool; clean, that is, free from foreign matter, dirt, straw, or chaff; and dense, indicating closeness of fiber. The crimp should be close. The wool should possess a bright, lustrous appearance, and cover the sheep uniformly over the head, body and legs, according to the breed in question.

Breeding Capacity.—In judging sheep for breeding purposes, there should be every indication of capacity or roominess in the animal, such as would enable them, in case of ewes, to nourish and give birth to strong, vigorous young. This is shown primarily by the amount of constitution possessed. The eyes should be large, bright, and clear, and the muzzle broad and the nostrils large. The chest should be broad and deep. There should be a general indication of thrift and vigor which would enable the animal to breed satisfactorily over a period of years.

BREEDS OF SHEEP



SCORE CARD FOR BREEDING SHEEP

GENERAL APPEARANCE (35 Per Cent) :		Points
1. Age.....		
2. Quality—wool soft and fine, bone fine but strong, bright pink skin, hair silky on nose and legs.....		10
3. Condition—deep even covering of firm flesh, not excessively fat, thrifty appearance.....		10
4. Form—long, straight top and underline, deep, broad, low set, stylish.....		8
5. Weight—score according to age and breed.....		7
BODY (25 Per Cent) :		
6. Back—broad, straight, long, thickly and evenly fleshed.....		8
7. Ribs—well sprung, long, close, thickly fleshed.....		6
8. Loin—thick, broad, long, firm.....		4
9. Chest—wide, deep, full.....		4
10. Flank—low, making straight underline.....		1
HINDQUARTERS (13 Per Cent) :		
11. Twist—plump, deep.....		4
12. Rump—long, level, wide to tail-head.....		3
13. Thighs—full, deep, wide.....		3
14. Hips—far apart, level, smooth.....		2
15. Legs—straight, short, bone strong and of good quality, strong upright pasterns, feet squarely placed.....		1
WOOL (13 Per Cent) :		
16. Quality—fine, pure, even crimp, close and uniform.....		5
17. Quantity—long, dense, even.....		4
18. Condition—bright, sound, clean, soft, plenty of yolk.....		4
HEAD AND NECK (7 Per Cent) :		
19. Neck—thick, short, free from folds, neatly tapering.....		2
20. Muzzle—fine, mouth large, lips thin, nostrils large and open.....		1
21. Eyes—large, clear, bright.....		1
22. Face—short, features clean cut.....		1
23. Forehead—short and broad according to breed.....		1
24. Ears—fine, soft, size and form according to breed.....		1
FOREQUARTERS (7 Per Cent) :		
25. Shoulders—covered with flesh, compact on top, smoothly joined to neck and body.....		4
26. Brisket—neat, well developed, prominent, breast wide between forelegs.....		2
27. Legs—straight, short, wide apart, strong, forearm full, shank smooth, fine, feet squarely placed.....		1
Total.....		100

SCORE CARD FOR FAT SHEEP

GENERAL APPEARANCE (32 Per Cent) :		Points
1. Age.....		
2. Condition—deep, even covering of firm flesh, especially in regions of valuable cuts. Points indicating ripeness are thick dock, back thickly covered with flesh, thick neck, full purse, full flank, plump breast.....		10
3. Quality—clean bone, fine wool, fine pink skin, light in offal, yielding high percentage of meat.....		8
4. Form—straight top and underline, level, deep, broad, low set, stylish.....		8
5. Weight—score according to age and breed.....		6
BODY (25 Per Cent) :		
6. Back—broad, straight, evenly and firmly fleshed.....		8
7. Ribs—well sprung, long, thickly fleshed.....		6
8. Loin—thick, broad, firm.....		6
9. Chest—wide, deep, dull.....		4
10. Flank—low, thick, making straight underline.....		1
HINDQUARTERS (17 Per Cent) :		
11. Twist—plump, deep, firm.....		5
12. Rump—long, level, wide to dock, thick at dock.....		4
13. Thighs—full, deep, wide.....		2
14. Hips—far apart, level, smoothly covered.....		2
15. Legs—straight, short, strong, shank fine, smooth.....		2
WOOL (12 Per Cent) :		
16. Quantity—long, dense, even.....		4
17. Quality—fine, pure, crimp close, regular, even.....		4
18. Condition—bright, sound, clean, soft, light.....		4
HEAD AND NECK (7 Per Cent) :		
19. Neck—short, thick, neatly tapering from head to shoulders.....		2
20. Muzzle—fine, mouth large, lips thin, nostrils large and open.....		1
21. Eyes—large, clear, bright.....		1
22. Face—short, features clean cut.....		1
23. Forehead—broad, full.....		1
24. Ears—fine, alert.....		1
FOREQUARTERS (7 Per Cent) :		
25. Shoulders—covered with flesh, compact on top, smoothly joined with neck and body.....		4
26. Brisket—neat, proportionate, breast wide.....		2
27. Legs—straight, short, wide apart, strong, forearm full, shank smooth, fine.....		1
Total.....		100

MEDIUM WOOL BREEDS**HAMPSHIRE**

Origin.—Wiltshire and Hampshire, England. Improved by the introduction of Southdown rams.

Color.—The hair on face and legs is dark brown and black.

Size.—Rams weigh from 180 to 300 pounds; Ewes from 150 to 225 pounds.

Fleece.—Length of fleece, 2 to 3 inches; weight of fleece, 6 to 10 pounds. The wool is somewhat coarser than that of the Shropshire.

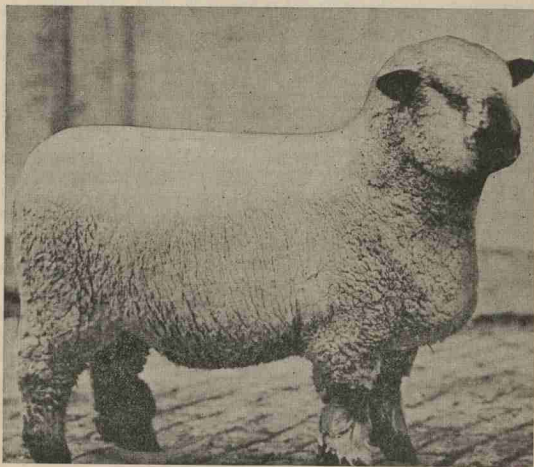


Fig. 47.—Hampshire

Strong Points.—The Hampshire is noted for its large size, early maturity and rapid growth. It thrives very well on forage crops and good pastures. This breed is without doubt the most popular breed in the Southern States. Hampshire ewes are good milkers and prolific.

Criticisms.—Hampshires are inclined to produce black fibers in the fleece, and oftentimes black spots of wool are found on the head and body, which are objectionable.

SHROPSHIRE

Origin.—Shropshire and Staffordshire, in central western England.

Form.—The Shropshire has good mutton form.

Color.—The hair on face and legs that is not covered with wool is of a dark brown.

Size.—Size of rams, 150 to 250 pounds; ewes 100 to 180 pounds.

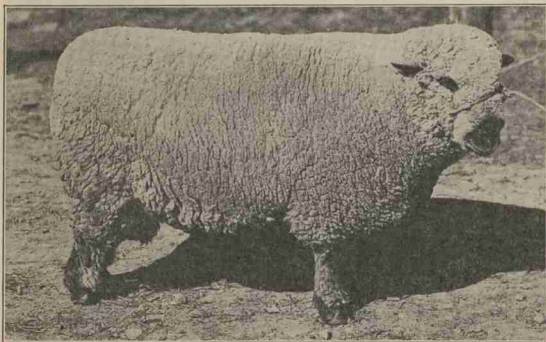


Fig. 46.—Shropshire

Fleece.—Length of fleece, $2\frac{1}{2}$ to 3 inches; weight of fleece, 8 to 12 pounds.

Strong Points.—The Shropshire is sometimes 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, and grazes and fattens well.

Criticisms.—Lack of ability to withstand heat and other adverse conditions in the South.

SOUTHDOWN

Origin.—The Southdown is one of the oldest of the improved mutton breeds of sheep, and a native of Sussex County, England.

Color.—The hair on the face and legs is steel gray to soft brown.

Size.—Rams weigh from 150 to 220 pounds; ewes 100 to 160 pounds.

Fleece.—Length of fleece, $1\frac{1}{2}$ to 2 inches; weight of fleece, 5 to 8 pounds.

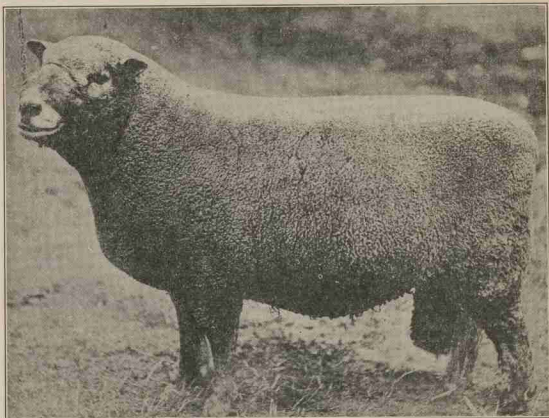


Fig. 48.—Southdown

Strong Points.—The Southdown is the most ideal in form of the mutton breeds of sheep. It ranks among the first in quality of mutton. It is an excellent fattener and a good grazing sheep. Its prolificacy is only fair.

Criticisms.—The Southdown has been criticized for its small size and light fleece. Some breeders are improving the size of sheep and fleece considerably.

DORSET HORN

Origin.—Dorset and Somerset counties, England. Both rams and ewes have horns.

Color.—The face, legs, nostrils, lips, and hoofs are white.

Weight.—Rams from 175 to 275 pounds; ewes from 150 to 200 pounds.

Fleece.—Length, 2 to 3 inches; weight, 5 to 8 pounds.

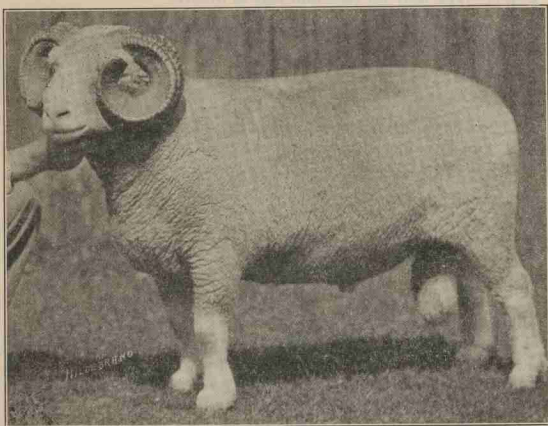


Fig. 49.—Dorset

Strong Points.—Dorset sheep are hardy and do well on either pasture or forage crops. They are very prolific and are noted for early breeding and heavy milking qualities.

Criticisms.—High open shoulders, with a noticeable drop behind the shoulders and the rump. Spots on the skin, markings on the horns, coarse hair on legs and presence of horns are considered objectionable.

OXFORDS

Origin.—The home of the Oxford sheep is in Oxfordshire, England. The breed was originated by crossing Cotswold rams on Hampshire ewes, then the first crosses bred to each other and improved by careful selection.

Color.—The hair on face and legs is brown.

Weight.—Rams weigh from 200 to 300 pounds; ewes weigh from 160 to 240 pounds.

Fleece.—Length of fleece, 3 to 4 inches; weight of fleece, 10 to 12 pounds.

The Oxford is a large sheep, shearing a heavy fleece of medium wool. The ewes are prolific and are good milkers. The quality of mutton is fair.

CHEVIOTS

Origin.—The native home of the Cheviot sheep is in the Cheviot Hills on the border between England and Scotland. The breed was improved chiefly by selection after the introduction of Lincoln, Leicester, and Black-faced Highland Sheep. The breed is very hardy and grazes well, and fattens more quickly on grass than in the feed lot. The hair on the face and legs is white. Black spots often occur on the ears, face, and the nostrils; lips and hoofs are black.

Weight.—Rams weigh from 160 to 200 pounds; ewes weigh from 120 to 160 pounds.

Fleece.—Length of fleece, 4 inches; weight of fleece, 7 to 10 pounds.

They are later maturing than some of the other breeds.

LONG WOOL BREEDS

COTSWOLD

Origin.—The native home of the Cotswold is Gloucester County, England. They were improved by the use of Leicester rams.

Color.—The hair on the face and legs is grayish or white; lips and nostrils black.

Weight.—Rams weigh from 225 to 325 pounds; ewes weigh from 175 to 250 pounds.

Fleece.—Length of fleece, 10 to 14 inches; weight of fleece, 10 to 14 pounds.

The Cotswold is fairly hardy, and does well on pastures. The fleece parts along the spine, allowing cold rains to penetrate to the body, causing colds.

LINCOLN

Origin.—The native home of the Lincoln is Lincoln County, England. They were improved by the use of Leicester rams.

Coor.—The hair on the legs and face is white.

Weight.—Rams weigh from 225 to 335 pounds; ewes weigh from 175 to 250 pounds.

Fleece.—Length of fleece, 10 to 14 inches; weight of fleece, 12 to 18 pounds.

The Lincoln, being a heavy feeder, is not adapted to scanty pastures. They are noted for their hardiness and great size and weight.

THE CLUB PLEDGE

I PLEDGE:

*My Head to clearer thinking;
My Heart to greater loyalty;
My Hands to larger service; and
My Health to better living for
My Club, my Community, and my Country.*

THE CLUB MOTTO:

"To Make the Best Better."