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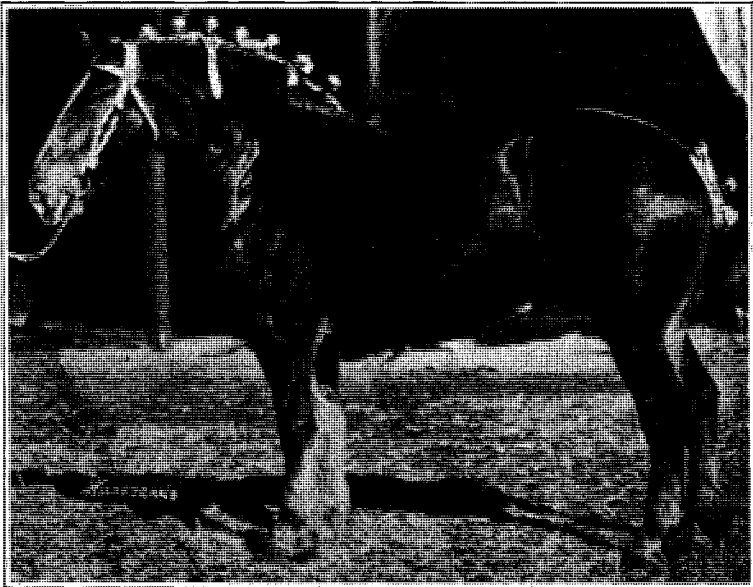
Colorado Agricultural College

EXTENSION SERVICE

Fort Collins, Colorado

JUDGING LIVESTOCK

BY D. A. JAY AND B. W. FAIRBANKS



Fadette, Grand Champion Belgian Mare, Denver 1918
(Courtesy of J. D. Brunton)

CO-OPERATIVE EXTENSION WORK IN AGRICULTURE AND
HOME ECONOMICS, COLORADO AGRICULTURAL COLLEGE
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Judging livestock is the making of a thoro analysis of an individual animal and measuring it to a standard—an ideal. There are men who have acquired knowledge in stock judging thru years of experience in growing and handling livestock. Others lacking in experience seek information that enables them to judge animals intelligently.

There are three essential characters to a good livestock judge:

1. Knowledge of individual excellence
2. Accurate powers of observation
3. Common sense judgment.

In preparing this bulletin on livestock judging we have not gone into the detailed description of all the points on the score card, but have emphasized the more important factors which go to make up the form of our better farm animals.

“DICK AND DOUG.”

JUDGING LIVESTOCK

CATTLE

Types of Cattle.—There are three types of cattle: 1. Beef type; 2. Dairy type; 3. Dual-purpose type.

What Is Type?—Type is that combination of characters which causes an animal to be valuable and efficient for a specific purpose. The special and distinctive features which are associated with one breed alone constitute what is commonly called **breed type**.

Breeds Of Cattle.—The breeds included under **beef type** are: Shorthorn, Hereford, Aberdeen-Angus, Polled Shorthorn, Polled Hereford and Galloway.

Breeds classed as **dairy type** are:—Holstein-Friesian, Jersey, Guernsey, Ayrshire and Brown Swiss.

Those of **dual-purpose type** are:—Red Polled, Milking Shorthorn and Devon.

JUDGING BEEF CATTLE

Points of General Appearance.—1. A blocky conformation with emphasis upon depth and width, with length relatively short.

2. Body

- a. Rectangular in shape
- b. Short from shoulder to hip
- c. Deep
- d. Wide and carried out evenly from front to rear.
- e. Top line and underline parallel

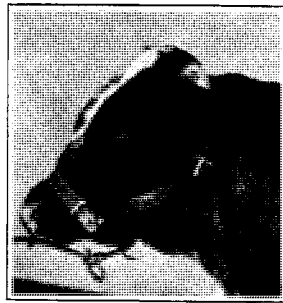
3. Legs short and placed squarely under body

4. Head short and broad

5. Neck short and thick



First National, a Sire of Many Excellent Beef-Producing Calves of the Desirable Type. A Short, Wide Head Attached to a Short, Compact, Thick-Fleshed body



A Beef Sire with a Long, Narrow, Plain Head is Generally a Rough, Slab-Sided Animal that Will Sire Undesirable Beef Calves

Head.—There is a correlation between a short, wide head and a wide, compact, thick-fleshed body.

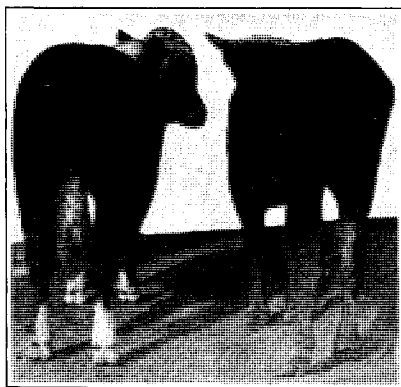
Back.—The back is that part of the top from the shoulders to the last rib. It carries the high-priced cuts of the beef carcass. It is desirable that it be straight and strong. Great width is important as it enables the back to carry the maximum of flesh. This width is obtained by the ribs arching boldly out from the back bone.

The desirable back is straight from the shoulders to the tail head covered with a thick and evenly distributed covering of flesh, which is judged by handling with the fingers. A deep and mellow fleshing is desired. Bare spots, uneven patches of fat, and flesh too hard or too soft are common faults.

Ribs.—It is important that the ribs come straight out from the back bone, and the turn of the rib be far removed from the spinal column. The rib must carry down deep, to give the desirable depth to the side, and give digestive capacity. The ribs of the beef animal should be close together, and the last rib close to the hip bone. This gives the short-coupled and compact conformation which contributes to beef type. In handling the animal over the ribs the flesh should be thick and evenly distributed.

A deep rib or a well-arched rib must not be confused with "paunchiness." This is an undue distention of the paunch, which is objected to by the butcher, as it lowers the dressing percentage.

Loin.—That part of the top between the last rib and the hip is the loin. It is composed of large muscles, from which the sirloin and porterhouse steaks are cut. It is the most expensive cut of the carcass. For this reason a critical examination should be given the loin. The loin must have great width and depth. Thick and firm flesh padding the loin out smooth is desired. A "live loin" is one which, to the touch, has springiness caused by the desired combination of fat and muscle. A "dead loin" is one which is too fat, and is soft to the touch. A "bare loin" is lacking in covering of flesh.



Left—a Pure-Bred 12-Months-Old Bull and (Right) a Three-Year-Old Bull that Was Eliminated from Service during the Pure-bred Sire Campaign in Colorado, 1923. Note Contrast in Rear Ends, the Region that Should be Filled with High-Priced Meat

Thigh.—The thigh begins at the rump and extends down the outside of the leg. A maximum amount of flesh is desired, and this is obtained by the thigh being wide and full. The thigh naturally narrows down near the hocks, and the flesh should come down with some bulge at this point. It is important, also, that the flesh be carried well down to the hocks. As viewed from behind, the animal should be thick from thigh to thigh.

Quality.—Quality is an indication of high dressing percentage, good breeding, good feeding qualities, and a fineness of muscle tissue. It is shown in bone, hide, hair, head, smoothness of frame and evenness of flesh. The high-quality bone is fine, with small, smooth and well-chiseled joints. One of the best indications of quality is the hide which should be thin, soft, and pliable. The hair should be soft and fine. The head is also an excellent place to judge quality and it should be of medium size and the lines clean, sharp and distinct. In the head of poor quality the impression of heaviness, plainness, and a lack of expression is given. Smooth shoulder, a rump which is smooth and even around the tail head and an even covering of flesh are points of high quality.

The judge must always beware of animals with too much quality. It is very difficult to describe the most desirable degree of quality, which lies some place between coarseness and excessive refinement. Quality is a necessity but constitution, conformation, and size must not be sacrificed at the expense of quality.

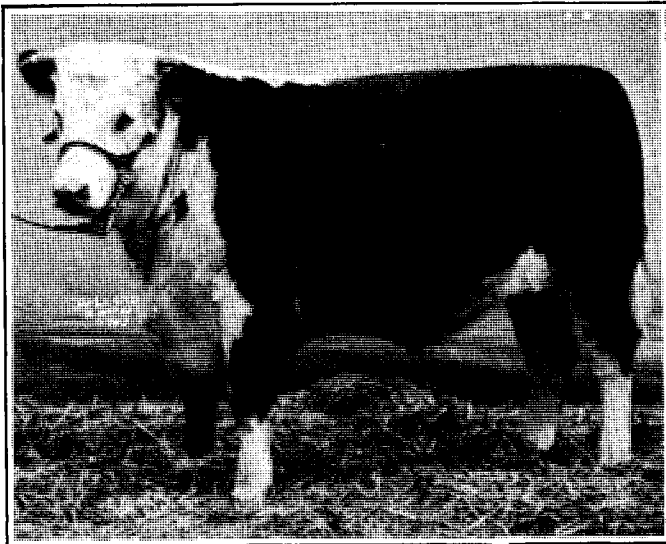
Fleshing.—Strictly speaking the term “fleshing” refers to the muscling or amount of lean meat. It is of supreme importance as it is the flesh that is desired and consumed. This flesh is particularly desired in the region of the back, loin, and hind quarters. Over these parts there should be a deep and even covering of mellow flesh. This is best judged by pressing with the flat of the hand. This flesh or muscling is sometimes spoken of as “natural flesh,” and in the very fat animal the amount of natural fleshing may be difficult to determine. As the thigh, arm and neck do not take on much fat, they



These Exceptional Individuals Show the Wide Backs, Deep Flesh, and Outstanding Quality.

will give evidence of the amount of natural fleshing even in the very fat animals. Great width over the crops also indicates heavy muscling.

Condition.—If fleshing means the amount of muscles or lean meat carried by the animal, we may define condition as the amount of fat deposited between the muscles tissues and upon the outside of the carcass. This is accomplished by feeding. The condition of the

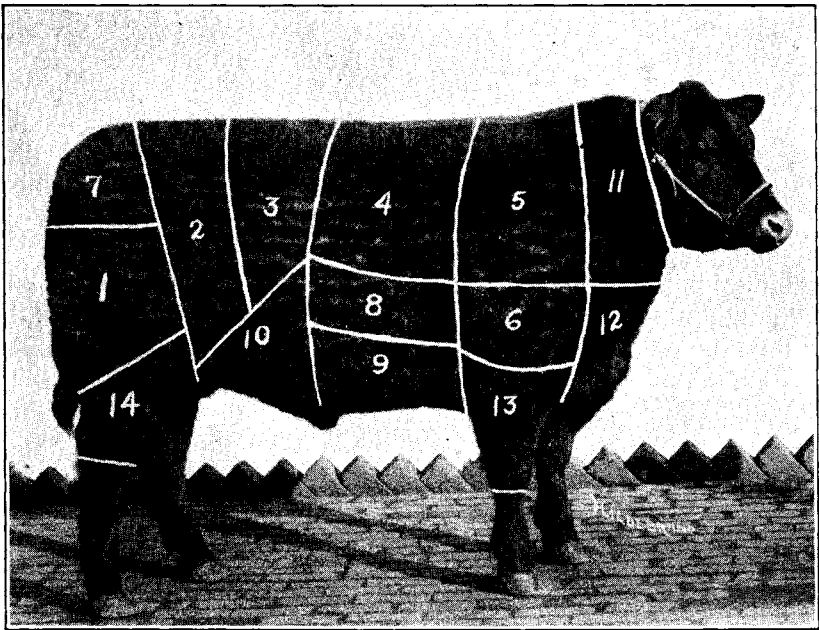


**Blayney's Pride, Grand Champion Fat Steer, Denver 1922
The Carcass of this Steer was Grand Champion Carcass at the Same Show**

animal is judged by handling the animal over the back, loin, and down the ribs. An animal in high condition feels mellow or springy to the touch, which may be considered the opposite to hard and unyielding.

There are several things which may be taken as indications of high conditions. A fat steer has a cod which is completely full of fat. A thin steer is often light in the hind flank, while the fat steer will feel full and heavy, when the hand is placed under the rear flank, and lifted gently. At the tongue root, fat will accumulate when the animal is in high condition. This is judged by pressing with the thumb and fingers. The fat steer has a characteristic walk which is never seen in the thin steer. The walk may be described as a rolling, waddling, or rocking gait.

A very undesirable condition which is found occasionally is described as "rolly" or "patchy." These are commonly found at the



An International Grand Champion Steer showing cuts of beef

High-Priced
 1—Round
 2—Sirloin
 3—Porterhouse
 4—Rib

Medium-Priced
 5—Chuck
 6—Shoulder clod
 7—Rump

Cheap Cuts
 8—Short Ribs
 9—Plate
 10—Flank
 11—Neck
 12—Brisket
 13—Shank
 14—Shank

tail head, end of the rump, upon the ribs, or at the edge of the rump. The butcher dislikes them for they indicate an uneven distribution of fat, and a rough unsightly carcass when hung in the coolers.

The ultimate object of the beef animal is the meat that he produces. The steer is bid for upon the market by a buyer who is a student of beef carcasses and the slaughtering business. Obviously the judge of beef cattle should be familiar with a few of the most essential points.

Dressing Percentage.—Two important facts affecting the selling price of a beef animal upon foot are:

1. The dressing percentage
2. The price of carcass beef*

The proportional weight of the chilled carcass to the weight of the animal on hoof expressed in terms of percentage is known as the dressing percentage.

Wholesale Cuts.—After the carcass has ripened in the cooler it is then cut up into the wholesale cuts. The carcass is cut into the two sides and then divided between the 12th and 13th ribs into the hind quarter and fore quarter. According to Illinois Bulletin 147 the hind quarters sell for 25 per cent more during the winter months and 40 per cent more in the summer. These are significant facts to keep in mind when judging a beef animal.

The fore quarter is then divided into the chuck, shank, ribs, and navel, and the hind quarter is cut into the loin, flank and round.

High-Priced Cuts.—A study of weights, prices, and values of wholesale cuts reveals the fact that the loin, rib and round are the highest priced wholesale cuts of beef. The cattle buyer then looks for smooth cattle and thick cattle, which are well covered over back, loin, rump, and developed in thigh and twist.

JUDGING DAIRY CATTLE

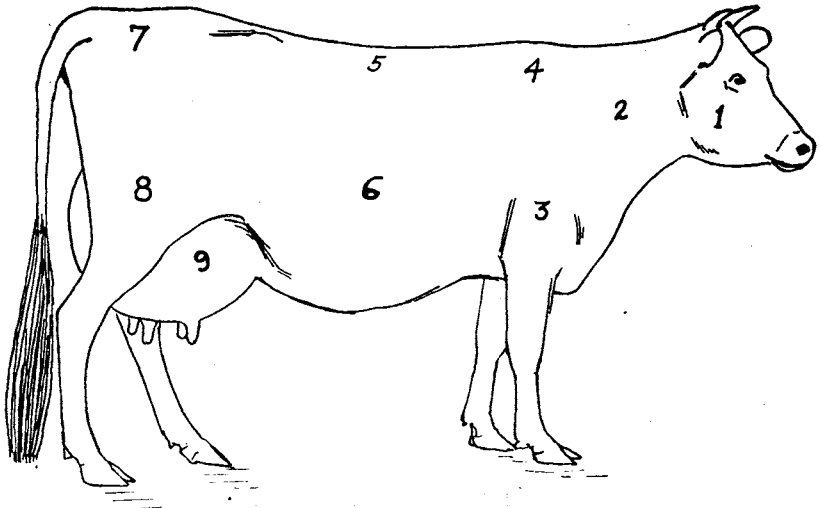
Points Of General Appearance.—1. A lean, angular, or triple-wedged conformation with emphasis upon length and depth, with width a minor consideration except in the hind quarter.

2. Body
 - a. Wedge shaped
 - b. Long from shoulder to hip
 - c. Deep
 - d. Straight top line
3. Chest deep and wide

*Types and Market Classes of Livestock—Vaughn.

4. Hind quarter
 - a. Wide
 - b. Thigh thin and well divided
5. Legs—medium length
6. Head—lean and medium long
7. Neck—lean and long.

Triple-Wedge Shape.—The ideal form of the dairy cow is well described by the phrase, “triple-wedge shape.” One wedge is observed from the side view of the animal, as it is much deeper from the loin to the underline than it is from the withers to the chest floor. If a line were extended along the back and forward in front of the head, and another line extended from the underline forward, the two lines would meet a point in front of the head.



Location of Points on Dairy Cow

- | | |
|------------|----------|
| 1—Head | 5—Back |
| 2—Neck | 6—Barrel |
| 3—Shoulder | 7—Rump |
| 4—Withers | 8—Thigh |
| 9—Udder | |

The second wedge is obtained by the hind quarters being considerably wider than the chest. Two lines starting at the withers as the vertex of an angle, would widen out at the hip bones, forming a wedge. It should be emphasized that this second wedge must not be obtained at the expense of a constricted chest. The chest must be wide and deep for adequate chest capacity, but the hind quarters must be just that much wider and deeper to give the desired wedge shapes.

The third wedge is obtained by the shoulders gradually widening out below, as they proceed downward from a pair of sharp withers.

Chest.—A chest capacity is necessary to insure the purifying of large quantities of blood in the lungs, which is needed in high milk production. Chest capacity is obtained by depth and width, and in the dairy cow perhaps more is obtained through depth than through width. This does not mean that too much narrowness is tolerated in the dairy cow. The fore ribs should arch out well, and there should be a fullness in the fore flank. The width of the chest can be judged also by the distance between the fore legs. This is usually spoken of as the width of chest floor. To insure capacity for heart and lungs, the fore rib should also be deep.

Back.—A strong and straight back, of moderate width and of fair length, is desired in dairy cattle. A great amount of discussion is found upon the importance of a prominent backbone and its reliability as an indication of high milk qualities. Suffice it to say for the time being, that the prominent backbone is an indication of freedom from beefiness, which is an important qualification of a dairy cow. While the ideal back is described as straight, and it is a point to be desired, yet in the judging of dairy cattle for commercial purposes, a judge cannot afford to be too critical over this point. It is known that flesh helps to make straightness of top line, and as this is absent in a good dairy cow, the back line may lack in straightness. Old dairy cows are quite apt to show a drop in the back. As straight a back as possible with other indications of good dairy type, is the point sought. Judges of purebred cattle in the large show ring, may become very critical concerning the back.

Loin.—The loin should be a very level, long, of fair width, and give the judge the impression of strength. This strength may be judged also by feeling for a strong development of muscle over the loin. Such development is not considered as opposed to dairy type. This muscle prevents a depressed or slack loin, which is always looked upon with disfavor by the dairy judge.

Barrel.—Great emphasis was placed upon the chest due to its importance in the purifying of large quantities of blood, for production of large quantities of milk. The barrel, like the chest, is of extreme importance in judging dairy cattle. The dairy cow manufactures her milk from the food she eats. A small barrel capacity indicates a smaller consumption of food, and this in turn means a proportionately smaller milk production.

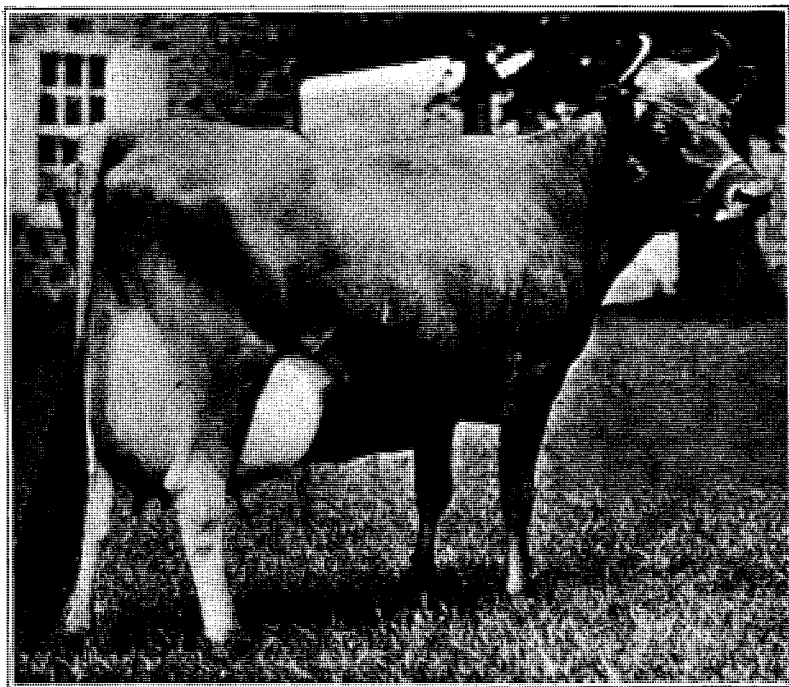
The capacity of the barrel is obtained by depth and width. This is largely obtained by a well-arched rib, and a rib which is long. In speaking of a well-arched rib in a dairy cow, it cannot be expected that the same degree of arch will be found as in the beef cow. Upon

the other hand, the dairy cow should never be flat sided. The desired degree of arch is a happy medium between the two extremes.

Rump.—The rump should be long, level, wide, and free from fleshiness. A long and level rump improves the general conformation of the animal and is associated with a long and level udder. Great stress is laid upon the width of rump, particularly the width between the pin bones. Animals wide in this point rarely have difficulty in calving.

Thigh.—The thighs should be long and thin. They may be said to be just the contrast of the ideal thigh described under beef cattle. No flesh between thighs is desired, but they should be open to allow the high attachment of a full and wide udder. The ideal thigh is sometimes described as being muscular, but no idea of fleshiness is ever intended.

Udder.—It is often said that three most important points in dairy cattle judging are the chest, barrel, and udder. The udder is best described under the headings of size, shape, quality and teat placement.



A good-type Dairy Cow. Note Contrast Between This and Beef-Type Steer on Page 6

The udder should be **large**. This **size** is obtained by its length and width, which together make for a large circumference of bag. Considerable attention is paid to the udder attachment. The udder is hung well forward along the belly, extending back until the swell is clearly seen beyond the hind legs when viewed from the side, and hung very high between the thighs. A fullness of udder is desired from side to side, and floor of the udder should be wide. The udder is hung to the abdominal wall by muscles, which, with age or due to weakness, may allow the udder to hang down pendulous and prominent. Such a condition must not be misinterpreted as greater size of udder.

The ideal udder is described as **well balanced and shapely**. This is obtained by the four quarters being equally developed. Very often the hind quarters are developed more than the fore quarters, which in such a case, the balance or symmetry of udder is destroyed. The floor of the udder should be flat, with no tendency to being cut up between the halves and quarters.

Quality.—Is one of the most important points in judging dairy cows. It should be known that the udder is made up of two kinds of tissue, namely glandular and connective. The connective tissue gives the support to the udder, while the glandular tissue is the seat of milk secretion. Obviously we desire a large amount of glandular tissue, and as little connective tissue as is possible to give some balanced shape to the udder. Unfortunately the highest-producing cows, with their abundance of glandular tissues, have udders of poor shape due to the lack of connective tissues. To properly balance these points calls upon the experience and judgment of our judges. The quality of the udder is judged with the hand. A high quality udder feels mellow, while one made up of too much connective tissue is spoken of as "meaty." The skin and hair on the udder should be soft and fine.

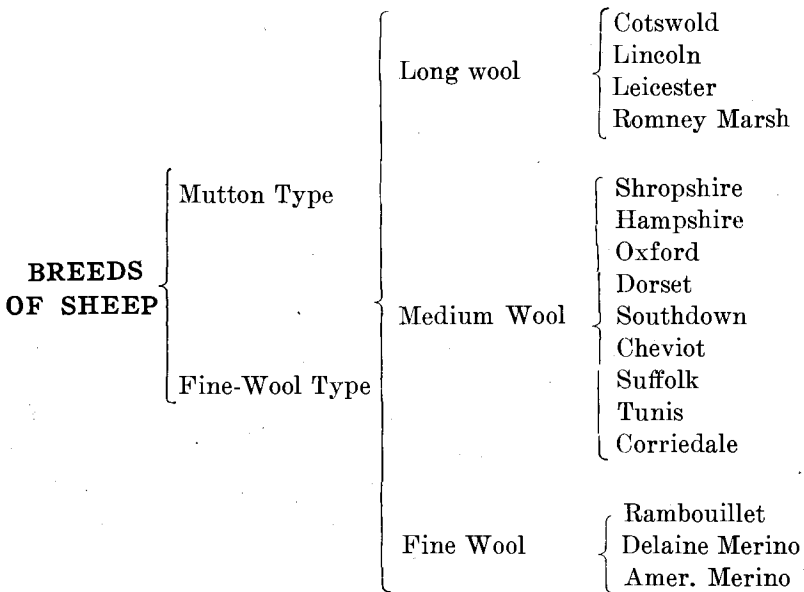
The **teats** should be **evenly placed** upon the udder, and of such size as to make milking easy. They should be cylindrical in shape. Leaky teats are objected to, and it is desired to have only four teats. the rudimentary teats are objectionable.

Milk In Veins and Wells.—The milk veins are large veins passing along the belly from the udder, and they enter the abdominal cavity through the milk wells. The milk veins are carrying blood from the udder to the heart, and their diameter is taken as some indication of milking power. They should also be long, tortuous, and branching. It should be remembered that the young heifer will have milk veins which are small in diameter and more or less straight. It

is necessary to keep age in mind, when examining the milk veins. The wells should be large and placed well forward.

Quality.—As in beef cattle, quality is judged by the fineness of hide, hair, ear, horn, head, and bone. We have two schools of thought in regard to quality of dairy cattle. One school is picking a large rugged type, at the expense of quality, while the other school is picking a very delicate and highly refined type. As in most differences of opinion the truth must be some place between the two extremes. H. M. Vaughn suggests that we insist “upon constitution first and then upon as much quality as may be had without delicacy.”

JUDGING SHEEP



There are several breeds of sheep making up the two types of sheep. For Colorado conditions and for the purpose of this bulletin, it has been deemed advisable to limit our description to lambs and sheep fattened for market.

General Appearance.—1. A blocky conformation almost identical with that desired in beef cattle.

2. Body

- a. Broad and deep
- b. Symmetrical
- c. Side lines straight
- d. Top line and underline straight and parallel.

3. Rump—broad, level, and as wide as the rest of body

4. Legs very short.

Back.—As the back furnishes one of the most valuable cuts of the carcass, it should be carefully examined. In judging sheep, the hand is used to a greater extent than the eye, due to the fleece, which hides that which is beneath. The hand should be held flat with the fingers together, and the body felt over the back bone. The back should be wide, short, and straight, and in working over the back bone and ribs, a thick, even, and firm covering of flesh is desired. A weak back is found by pressing the back with the hand. In a weak back a dip or a depression is noted.



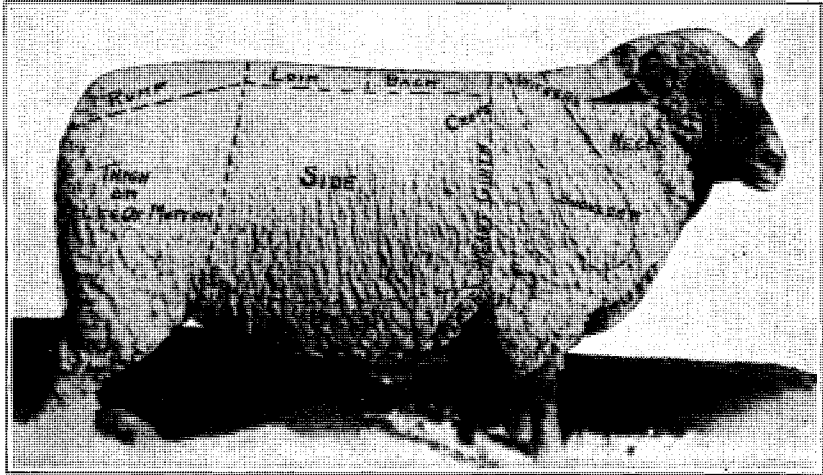
T. S. F. 19 No. 41917, Hampshire Ram at Head of Colorado Agricultural College Flock. A Good-Type Mutton and Wool Sheep

Ribs.—The ribs should be well arched and deep. The arch of the rib gives width to the back, which makes for carrying the maximum amount of flesh. The deep rib gives plenty of room in the chest for large vital organs, and a good capacious middle for feeding capacity. The ribs should be placed closely together, and to secure the desired compact conformation, the last rib should be as close to the hip bone as possible. Firm, thick, flesh covering the ribs evenly is important.

Loin.—The loin is the highest-priced cut of the carcass. It should combine width and thickness, and be covered with firm, thick and

evenly distributed flesh. A sheep is very apt to be well covered over its back, and bare over the loin. The opposite condition may also exist. It is important then that the judge work over all parts of the sheep carefully.

Rump.—The rump should be long, level, and wide. It is very important that the top line should carry out level from hips to tail head. A very common fault in sheep is a sloping rump, which not only spoils the blocky conformation of the sheep, but is generally associated with a short leg of mutton. Often the rump is found to be sloping and peaked besides. Such a rump is associated with a leg of mutton which lacks thickness and fullness at the top. The covering of flesh should be abundant but smooth. Very often the flesh around the tail head is soft and inclined to be patchy.



Showing Location of Points of Sheep

Thigh and Twist.—These two parts are described together as they constitute the “leg of mutton.” The back, loin, and leg of mutton are the three highest-priced parts of the mutton carcass. In judging the leg of mutton it should be firmly grasped between the thumb and fingers of each hand, by placing one hand in front of the thick part of the leg and high up, and the other hand on the rear part. It has been the writers’ experience that students fail to get a good idea of the leg of mutton, because they do not grasp the leg high enough. The leg should be full and the flesh should come well down to the hocks.

Quality.—High quality sheep are desired by the butcher as they are “good killers” and dress out an even line and attractive car-

cass. Quality is judged by the head, bone, wool, hair on face and legs, and the smoothness of frame and fleshing. Quality is easily seen in the head, and the head may be taken as an important evidence of quality. Certainly a sheep with a coarse head will not be of high quality throughout. The bone should be fine and strong. The hair on the face and legs should be fine and soft. A sheep covered evenly and with straight and trim lines is one possessing quality.

Condition.—The condition is judged by the covering of the spinal column, the neck, the breast, the fore flank, the dock, and the purse. (The purse is the scrotum of the wether, corresponding to the cod of a steer.) The covering of the spinal column is of first importance, for the back and the loin are two of the choice cuts of the carcass. The back bone should never be prominent and in a sheep of high condition a hollow is felt along the back bone with the flesh bulging on each side. The neck and breast are plump, and the fore flank full. The dock should be thick when felt with the thumb and finger, and the purse well filled with fat. Lambs rarely become too fat or “overdone” but it is common among older sheep. In such cases the flesh is soft, and in bunches. Such a carcass is wasty.

Dressing Percentage.—A high dressing percentage in sheep is indicated by its being

1. Heavily fleshed
2. Neat in form
3. Free from paunchiness
4. Light of pelt



Group of Strictly Mutton Type Fat Lambs

The dressing percentage of sheep is not as important as in cattle due to the fact that the offal has a higher value than that from cattle, and also because of the value of the pelt. A judge, however, should discriminate against those animals which are paunchy, and lacking in flesh.

High-Priced Cuts.—The accompanying diagram gives the location of the wholesale cuts. The back, loin and leg of mutton are the high-priced cuts. These parts average about 66 percent of the weight of the carcass, but make up about 87 percent of the value.

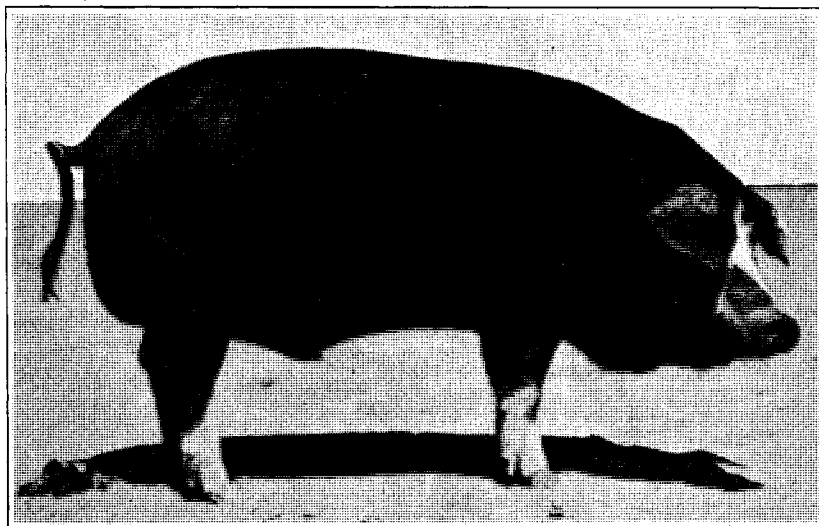
JUDGING HOGS

Breeds of Hogs.—The lard type includes the Duroc Jersey, Poland China, Chester White, Hampshire, Berkshire, and Spotted Poland China.

The Bacon Type includes Yorkshire and Tamworth.

General Appearance.—The hog most desired should meet the following requirements:

1. Conformation
 - a. Long
 - b. Deep
 - c. Reasonably wide
 - d. Smooth
2. Height
 - a. Tall from back to ground

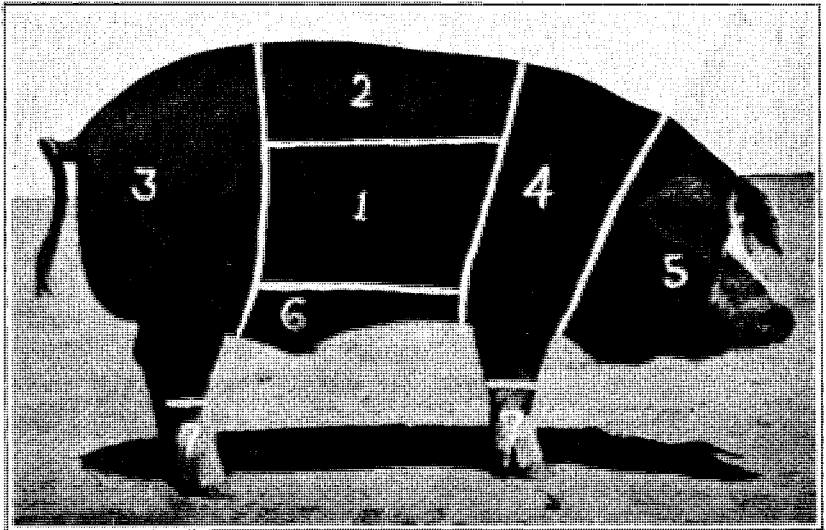


**Joe's Big Bob Wonder, Grand Champion, Chicago International 1921
Bred, Fed, and Exhibited by Colorado Agricultural College**

- b. Rather upstanding from belly to ground
- 3. Topline
 - a. Arched
- 4. Underline
 - a. Straight, trim and level
- 5. Legs
 - a. Medium long and straight
- 6. Flank
 - a. Well let down
- 7. Bone
 - a. Medium to large, but not coarse
- 8. Active

Shoulders.—A common fault in hogs is shoulders which are too open and too heavy. As the shoulders are a cheap cut of meat it is not desired that they be heavy and prominent. Such shoulders spoil the balance and symmetry of the animal. They should be the same width as the hind quarter, being smoothly laid in, and the top smoothly and thickly fleshed.

Back and Loin.—The back and loin are two important cuts of the hog carcass. They should be long, and medium in width. A back which is very wide is usually associated with a short-bodied, small



Location of Commercial cuts of a hog

High-Priced
 1—Side or Bacon
 2—Back and Loin
 3—Ham

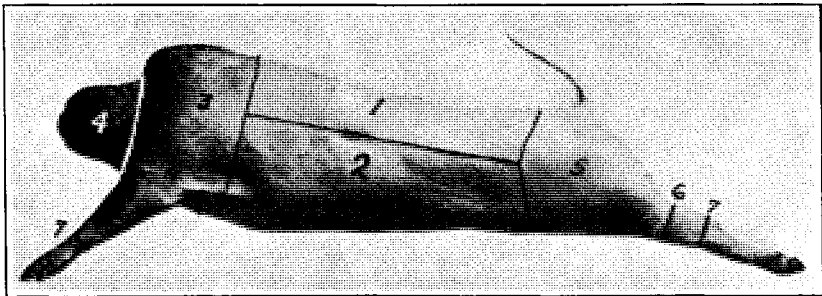
Medium-Priced
 4—Shoulder

Cheap Cuts
 5—Head
 6—Belly
 7—Feet

hog which quickly fattens but never attains size. A very narrow-backed hog on the other hand is usually a hog which is deficient in constitution and feeding qualities. When viewed from the side, the back should show a marked arch. The flesh of the back and loin should be thick and smooth. A weak back or loin not only detracts from the appearance of the hog, but it is an indication of a lack of muscling, hence the back and loin will be deficient in lean meat.

Sides.—As suggested in the outline given for general appearance, the sides should have length, and depth, the side being straight and smooth. If a straight edge were laid along the side of the hog, the side should touch the straight edge at every point. Straightness or evenness of surface is also desired from any point on the top line to a corresponding point on the underline. The side should be smoothly covered with thick flesh. A common fault in the sides is the presence of wrinkles and creases. A wrinkle is in the skin only, while a crease is not only in the skin but in the flesh beneath. They are both objected to because they denote lack of quality and detract from the appearance. The butcher objects particularly to creases, because they are apparent even after the carcass is dressed, pressed and cured. Such carcasses do not bring as high a price as smooth ones.

Rump.—The rump of the hog should be long and just as wide as the rest of the body. The rump is sometimes described as level, but one cannot expect the levelness in the rump of a hog as in a steer. It is better to say that the rump should have a slight curve downwards, and this curve to coincide with the arch of the back. A short rump and a steep rump are always in disfavor. Such a conformation destroys the general balance, lightens the hind quarter, which is a desirable cut of the carcass, and causes a faulty set of the hind legs. The rump should also carry its width out from front to rear.



Cuts of a Hog Carcass

1—Back and Loin
2—Side or Bacon
3—Shoulder
4—Jowl or Dixie Square

5—Ham
6—Hock
7—Feet

Hams.—The ham of the hog includes the rump, thigh, and twist. A ham which is large, well developed, and meated full to the hocks, is in demand. Particular attention should be paid to the firmness of and neatness of the ham. In the opinion of the writers the student does not fully realize the objection to a soft and flabby ham. Such a ham must lose considerably in trimming, and this loss runs as high as 15 per cent in some cases.

Quality.—The quality of the hog is judged by the head, hair, bone, evenness of finish, and freedom from wrinkles and creases.

Finish.—A proper finish is secured by that amount of flesh which will give the hog a smooth, firm, and well-rounded-out appearance. The flesh should be firm, particularly when felt along the top line, below the shoulders, and at the lower end of the hams.

Dressing Percentage.—A high dressing percentage is secured by fatness and a lack of paunchiness.

High Priced Cuts.—The wholesale cuts are shown in the accompanying illustration.

The ham, loin and belly constitute 47 per cent of the weight of a 250-pound hog and 60 per cent of the value. It may be said that the valuable part of a hog lies behind his shoulders.

JUDGING DRAFT HORSES

Draft horses are bred for performance rather than for meat for human consumption. Muscles similar to the muscling of a meat animal are necessary but for a different purpose—power and strength.

BREEDS OF DRAFT HORSES

The different breeds of draft horses are:

Percheron
Belgian
Shire
Clydesdale
Suffolk

GENERAL APPEARANCE

Weight.—1600 pounds and over

Height.—16 to 17 hands

Form.—Massive, broad, deep, symmetrical, heavily muscled, stylish and attractive.

Head.—A lean, clean-cut head, chiseled out in appearance, with a prominent, bright, clear eye accompanies a horse with snap and life, not a sluggish dead head.

Shoulder.—A heavily muscled shoulder gives strength. A horse with a sloping shoulder generally has a longer stride, a longer pastern and more spring to his step. This absorbs the shock of his heavy



Elmwood NonPariel 159086. Reserve Champion Denver 1924. Is a Son of a Grand Champion Sire and Grand Champion Dam. Head of Colorado Agricultural College Herd

weight and lessens the degree of unsoundnesses in his joints and feet.

Back.—A wide, heavily muscled back is needed to give the horse-power to push into the collar. A short back gives more strength than a long back and is more desirable. The wide spring of rib gives more room for stronger, wider muscling on the back.

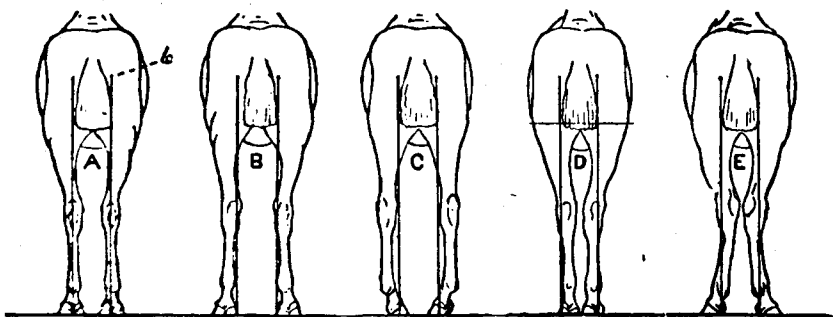
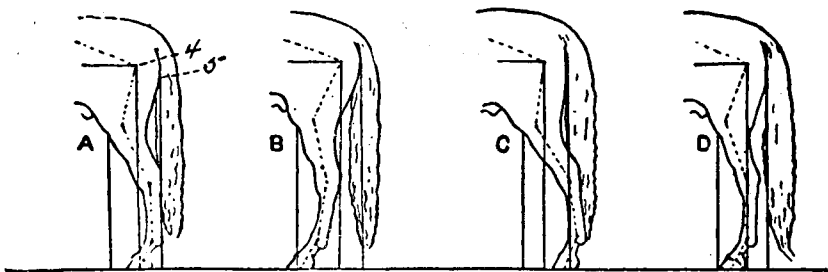
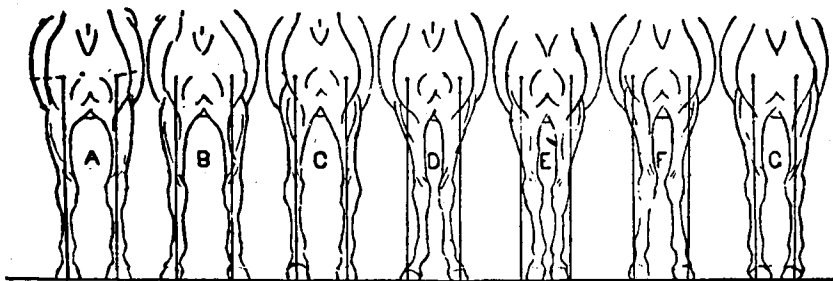
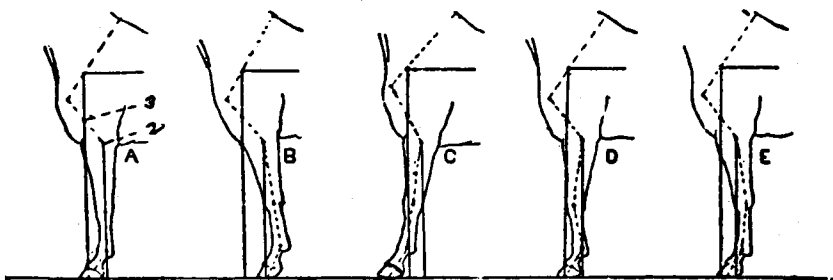
Hind Quarters.—This region includes the hips, croup, and thighs. Since the horse in going into the collar does his pushing with these muscles it is necessary that they be wide and well filled out in each of these points. This is true in the croup as it should not droop. A sloping croup is generally correlated with crooked hind legs.

Constitution.—The draft horse's efficiency is partly governed by his constitution—or chest capacity. A deep, wide, roomy chest is as necessary to a draft horse as a big steam chest is to a steam engine. This is seen by his spring and length of fore rib and width between the fore legs.

Feet and Legs.—This is by far the most important part of the horse. It is obtained by breeding. A horse with poor feet and legs has a terrible handicap. The bone must be smooth, flat and hard. the legs should be straight as shown in illustration on page 23.

position
of the legs
of a horse
when standing

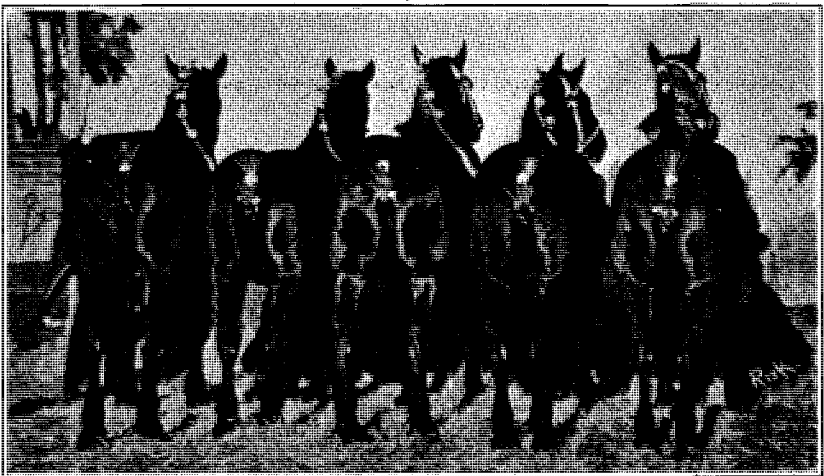
Fore Legs	Viewed from in front	Correct position	{ A vertical line downward from the point of the shoulder should fall upon the center of the knee, cannon, pastern and foot.
		Deviations	{ Knees too close—knock kneed Knees too wide apart—bow kneed Fetlocks close, toes wide—splay footed Toes turned in—pigeon toed
Hind Legs	Viewed from side	Correct position	{ A vertical line should fall from the center of the elbow joint upon the center of the knee and pastern joints and back of the foot, another vertical line from the middle of the arm should fall upon the center of the foot.
		Deviations	{ Back at the knee—calf kneed Forefeet too far advanced—camped Forefeet too far back—standing under Too steep pasterns Too weak pasterns
	Viewed from the rear	Correct position	{ A vertical line from the point of the butlock should fall upon the center of the hock, can- non, pastern and foot.
		Deviations	{ Hocks too wide apart—bow legged Hocks too close together—cow locked Close fetlocks Toed in
	Viewed from the side	Correct Position	{ See illustration on page 23
		Deviations	{ Sickle locked Hock straight or open angled Steep pasterns Weak pasterns



A study of the lines drawn show the correct set of the legs. The pastern must be reasonably long and sloping. A pastern too sloping is weak—too straight absorbs the shock of the weight and tends toward stiffness and unsoundness. The hoof must be large, hard and free from constriction at the head and heel.

Action.—A good draft horse should not be just big and clumsy. A good, free, snappy action is wanted. A long, straight, snappy stride covers the ground without any waste of time and energy and is most desirable. While a large part of the work of the draft horse is done at the walk, sometimes necessity demands his work done at a trot. This he must be able to do freely and actively.

Quality and Substance.—The term quality refers to fineness of texture, while substance refers to size. Quality associated with substance in the feet and legs of a horse denotes good wearing ability. The term "Clean" is often used in the judging of horses, and it refers to freedom from meatiness. The quality and substance of a draft horse is judged in head, hair, hoofs, bone, and joints. The head is described as being of medium size, carrying neat ears, a trim muzzle, and all lines of the head well defined, distinct, or of a well-chiseled appearance. The hair should be soft and fine. The hoof to have good wearing qualities, should be of fine texture. The bones must be hard and smooth, and particularly the cannon bones and pastern joints should be clean or free from meatiness. All joints, especially the knees and hocks should be well defined and clean. It should be impressed at all times that the feet and legs of the horse are the most important points in judging.



Heavy Draft Horses Represent Power