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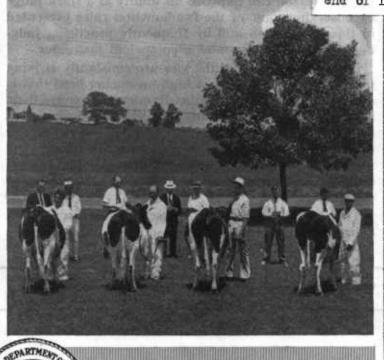


U. S. DEPARTMENT OF AGRICULTURE

FARMERS' BULLETIN No. 1769

DAIRY CATTLE JUDGING Has b

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THE ABILITY TO SELECT good dairy animals by their appearance and to appraise differences in conformation is desired by all breeders and possessed by comparatively few. Like good artists, really good stock judges are probably "born rather than made"; yet any person can improve his ability as a stock judge by observing some of the fundamental rules presented in this publication and by frequently practicing judging under the guidance of a competent instructor.

Breeders of dairy cattle who are constantly striving to develop and maintain a high-producing herd that is also satisfactory in type must frequently exercise their ability to judge. Instructors in dairy cattle judging are endeavoring to develop their students' latent ability to recognize differences in animals and to estimate the relative importance of these differences. The discussions in this bulletin may be helpful to both classes of dairymen.

This bulletin supersedes Miscellaneous Circular 99, Judging Dairy Cattle.

Washington, D. C.

Issued February 1937

DAIRY CATTLE JUDGING

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IMPORTANCE OF DAIRY TYPE

In any dairy cattle breeding program the matter of type should be given some consideration. Economy of production and a long life of service naturally should be the principal objectives in the development of a dairy herd, but uniformity in the appearance of the animals in the herd and their fairly close approach to good type are qualities which buyers of breeding stock are seeking and for which they are usually willing to pay some premium. The breeder himself likewise gets greater satisfaction out of caring for a high-producing herd that approaches the accepted standards for good dairy conformation. The breeder, dairyman, and prospective dairyman, therefore, should learn what constitutes good type and how to distinguish between good and poor dairy conformation. The aim of this bulletin is to guide such persons in the practice of estimating the relative merits of dairy animals on the basis of their appearance.

The method presented is the one commonly used by competent judges in making awards in show-ring competition. It is also used, in some cases, for herd selections by practical breeders who attempt to combine good type with ability to produce. So far as selecting good producers solely on the basis of type is concerned, the method has its limitations. High-producing ability and a good dairy conformation do not always appear in the same animal. Many cows well developed and approaching the accepted ideal conformation are inherently low producers. On the other hand, many cows that fall far short of the best dairy type have high-production records.

This condition can be attributed to the fact that body conformation and producing ability are probably inherited independently and that such small correlation as does exist between the two has in all probability been brought about through continuous mating of animals that combine the two qualities in a greater or lesser degree.

Since the correlation between good type and high production is far from perfect, it is evident that from a practical breeders' standpoint greater emphasis should be given to indication of production than to the fine points of breed type. When the difference in production of two cows is slight, it is usually impossible to note this difference in the conformation, but when one is inherently a very low producer capable of producing, say, only 150 pounds of butterfat in a year, and the other is inherently a very high producer having a capacity for producing four or five times as much, a knowledge of the principles of judging makes it easy to determine by conformation alone which one is the low and which one is the high producer. This point is brought out clearly in figures 1 and 2. So far as inherent milk-producing ability is concerned, it is not difficult to determine which of these two cows is the better.

Judging is brought into practical use every time a cow is bought for dairy purposes. No matter whether or not the animal has a record of production, few dairymen would buy without an inspection. Some have so trained their powers of observation as to be able to tell fairly accurately by personal inspection alone whether or not a cow will be a good producer if given proper care and feed.

REFERENCE BOOKS, BULLETINS, AND PHOTOGRAPHS

The possibilities in the use of printed matter and pictures in familiarizing himself with the characteristics of the ideal types of different breeds should not be overlooked by the beginner or the student of livestock judging. A considerable amount of such material is easily available for study as texts or for reference. Many books on livestock judging have been written. The United States Department of Agriculture and the various State colleges of agriculture have issued and distributed many bulletins both on livestock judging generally and on the description of the ideal types of most of the important breeds of cattle. Where it is impossible for the beginner actually to see and handle the animals of a given breed, pictures of prize winners and outstanding animals of that breed often are obtainable. By studying these pictures the person unfamiliar with the breed can, to some degree, learn the desirable points in ideal conformation and appearance of the animals.

MAJOR POINTS IN JUDGING DAIRY COWS

The ultimate objective in dairy cattle judging is to enable one to select cows that will be not only economical producers of milk but also satisfactory in appearance. Therefore the points of conformation that must be fixed clearly in mind are those that are thought to be most closely associated with milk production. According to our present knowledge of the relation of function to form, these major points are: (1) Mammary system, (2) dairy temperament, (3) body capacity and size, and (4) health and vigor. In addition to these points there are what may be called the fancy points, such as

pretty head, level rump, small horns, straight back, and wide muzzle. These fancy points are considered more or less carefully in present-day show-ring judging; but they are probably only slightly, if at

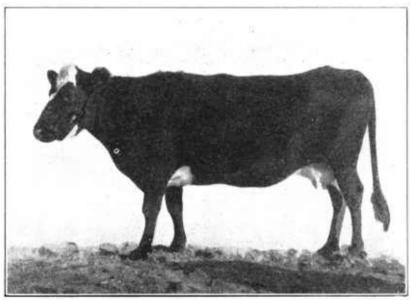


FIGURE 1 .- Poor dairy type.

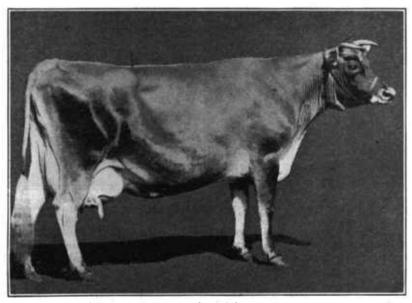


FIGURE 2.-Good dairy type.

all, correlated with producing ability. They do, however, add somewhat to the popular conception of beauty of the animal and thus may enhance its selling value and that of its offspring.

MAMMARY SYSTEM

Included in the mammary system are the udder, the milk veins, and the milk wells. The importance of the mammary system may be judged from the number of points allowed for it on the score card. A good cow must have a well-developed udder or she will not be classed as a dairy cow. A cow with good health and vigor and having, as well, a true dairy conformation, ideal dairy temperament, and a body of proper size and capacity—in short, one having all the other important dairy qualities—but poor in udder development, should never win first honors in a show ring.

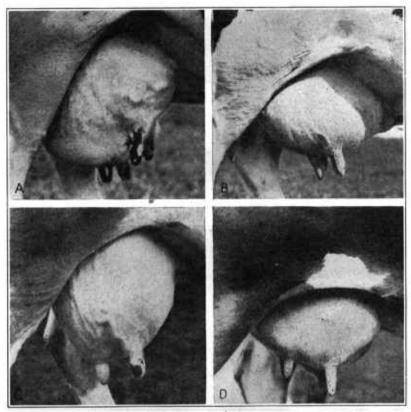


FIGURE 3.—Side views of poor udders: A, Deficient forequarters; B, teats too close together; C, a pendulous udder; D, poorly developed rear udder and teats of uneven size.

But what constitutes a good udder? When in full flow of milk a good udder is large, extends well forward and far up behind, and is firmly attached to the body. The bottom is nearly level, and all the quarters are even in size with very little, if any, separation between them. A good udder is pliable and free from lumps. A hard, meaty udder is not desirable. When milked out, a good udder reduces materially in size and hangs in more or less distinct folds. This is true also in the case of dry cows except those nearing the time of calving. The skin of a good udder is thin and the hair fine

and soft. Views of different types of udders are shown in figures 3

to 6, inclusive.

Teats should be evenly placed, of moderate size, and easy to milk. Judges sometimes compare the milking qualities of udders by drawing a little milk from each quarter. In the larger cattle shows judges many times require the cows to be milked dry in the show ring. Defects in the udder and teat obstructions can thus often be detected.

The size and shape of the teats and the shape of the udder, while not indicative of the producing capacity, are nevertheless important

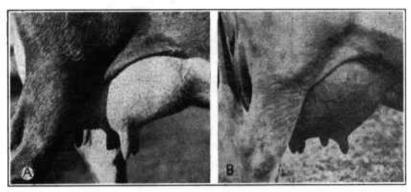


FIGURE 4.—A and B, side views of good udders. Note the perfect balance of udders, with well-placed teats of good size.

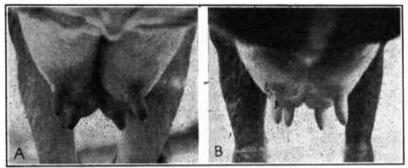


FIGURE 5.—Front views of poor and good udders: A, this udder is cut up too much between halves and quarters; B, udder more evenly quartered.

points to consider from the standpoint of disease, injury, and convenience in milking. A pendulous udder is more susceptible to

injury than one closely attached to the body.

The large blood vessels usually visible on the under side of the abdomen are called mammary veins. These carry venous blood from the udder back to the heart. Other veins serving the same purpose are hidden from view. Furthermore, they may vary in size; and since the blood does not all return to the heart through the veins that are visible, too much emphasis should not be given to them in judging.

The milk wells are the holes in the body wall through which the visible mammary veins pass to return to the heart. The milk wells

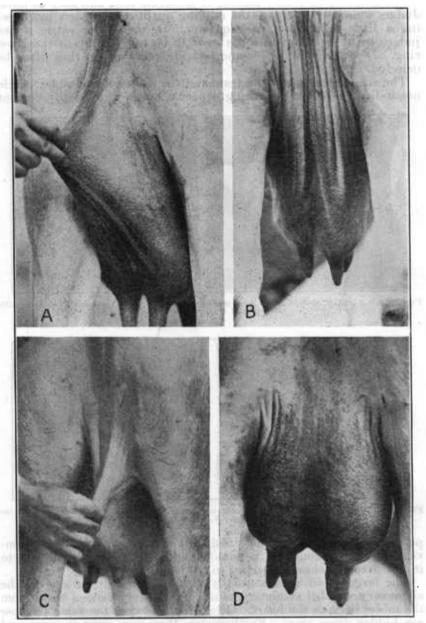


FIGURE 6.—Udder attachments. A good udder when milked out dry should hang in loose folds and show high attachment in rear: A and B, good udders; C and D, poor udders.

vary in size and number; and for the same reason as that given for the milk veins, too much emphasis in judging should not be given to their size and number.

DAIRY TEMPERAMENT

Dairy temperament is a term for that quality in a cow which indicates that she will convert feed into milk rather than solely or mostly into body fat and flesh. The lack of the blocky, beefy appearance, as shown by angularity, the body not heavily covered with flesh, and the bones fairly prominent, are the main indications of dairy temperament. In a mature cow the size of the udder is also taken into account.

A nervous temperament is not to be confused with dairy temperament. The former refers to the tendency to be easily excited. A beef cow may be nervous but show a decided lack of what is called dairy temperament. It is true that good dairy cows have a highly developed nervous system, owing to the fact that the nerves control the many functions of the organs of the body, but this does not necessarily show itself in a nervous disposition. The tendency to become easily excited is not a desirable quality in dairy cows.

In judging dairy temperament due allowance must be made for stages of lactation and pregnancy. Both cows and heifers heavy with calf, especially the latter, will take on flesh to the point where normal angularity may be obscured. Such animals ordinarily lose sufficient flesh and fat during 2 or 3 months of heavy milking to permit the observance of their actual dairy temperament. Extreme thinness resulting from insufficient feed should not be confused with indications of dairy temperament.

Ability to draw reasonably accurate conclusions with respect to dairy temperament requires long experience with cattle and numerous observations and comparisons of individuals differing in type.

BODY CAPACITY AND SIZE

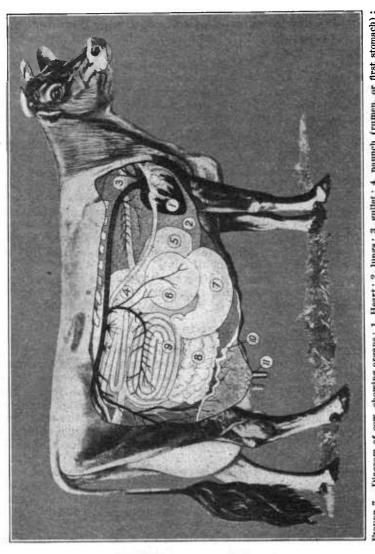
If a large and a small cow both have an inheritance for a high level of production, the larger cow is more likely to produce in accordance with this inheritance than the smaller cow, because of the former's capacity for consuming large quantities of feed. There will probably not be as great a physical strain for the larger cow that produces at a high level as for the smaller. On the other hand, large size alone is no guaranty of high milk-producing ability, because the larger cow may not possess the inheritance for a high level of production.

The various breed associations have established standards of weight for their respective breeds. These are given on the score cards. One should familiarize himself with these standards and learn to recognize the size of an animal that is about the standard for the

breed.

Figure 7 shows the relative positions of some of the organs of a cow. The nature of the feed which is taken into her body requires a large storage capacity. It takes feed to make milk, and a dairy cow with the inherent ability to produce large quantities of milk usually has a large capacity for feed also. The four divisions of the stomach of a cow and her intestines must not only be large, but the space they occupy must be roomy. This necessitates well-sprung rear ribs and a long, wide, and deep body.

High milk production requires a plentiful blood supply not only for the udder but for all the processes of digestion and assimilation as well as for the nervous system, and all this blood must be purified by the lungs. This emphasizes the importance of an ample heart



and lung capacity, well-sprung fore ribs, and a good breadth and depth of chest. Figures 8 and 9 illustrate differences in body capacity.

HEALTH, VIGOR, AND SOUNDNESS

Health and vigor are factors which must be considered in judging any class of breeding animals. Deficiences in these points are determined largely by appearance and the apparent frailty and delicacy of the animal. Associated with them are the factors of constitution and fertility. Lack of fertility may sometimes be determined by a laxness or sinking of the muscles around the tail head, producing a depression. Such indications, however, are not infallible. Constitu-

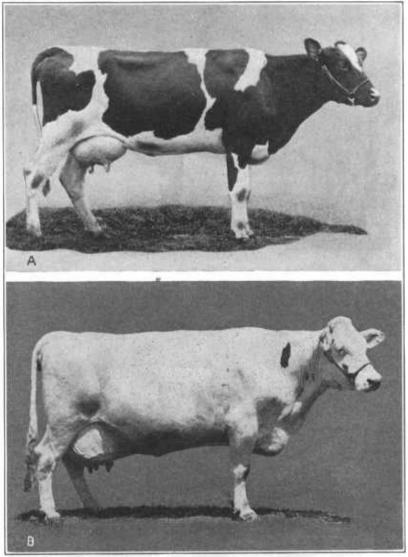
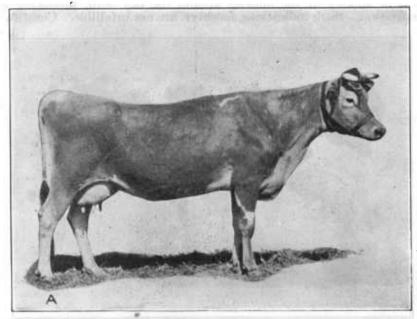


FIGURE 8.—Shallow-bodied (A) and deep-bodied (B) Holstein cows.

tion does not refer to the dimensions of the chest, but rather to the ability of the animal to withstand the strain of heavy milk production. Many of the points pertaining to health and vigor are indefinite and can be evaluated only by those having had considerable cow experience, if at all. Extreme deviations from normal conformation

and condition, such as blindness, lameness, knocked-down hips, and blind quarters, are referred to as unsoundness.



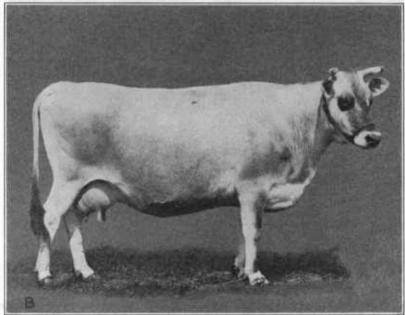


FIGURE 9.—Shallow-bodied (A) and deep-bodied (B) Jersey cows.

Concerning the importance of the major points, then, it may be said that so far as producing ability is concerned, without regard to minor points, that cow is very likely to be the best which is most

nearly perfect in health and vigor; surpasses in dairy temperament; has the largest capacity for consuming feed, as shown by the length, depth, and breadth of the body where the organs of digestion are located; the greatest lung, heart, and circulatory system, as shown by the development of the corresponding part of the body; and the greatest development of the mammary system.

GENERAL APPEARANCE AND TYPE

General appearance, while not listed as a separate point on the general score card, is nevertheless taken into account when all of the major points are under observation. In considering general appearance it is best to view the animal from a distance. This makes it

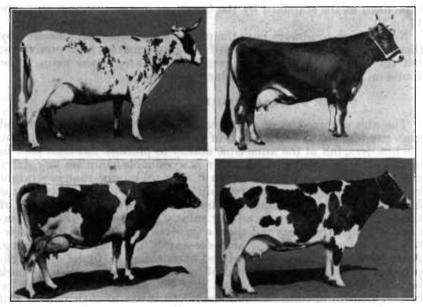


FIGURE 10.—Cows with good dairy conformation and high-production records (Ayrshire, Brown Swiss, Guernsey, and Holstein).

possible to disregard, more or less, the individual parts of the body and to see the animal as a whole. Such points as the relation of the size and development of one part of the body to that of another, the general carriage and symmetry of form, the blending of body lines, and the conformity of the animal to a definite type are considered under general appearance.

Good type refers to the standards for conformation established by the breed associations. This is the type sought for by show-ring judges. Breeders also use this standard as the ideal toward which to work. The purpose of establishing a type standard is to establish

a definite form which will be accepted by most breeders.

Models of ideal types of dairy animals, as shown in figures 12-21, have been prepared by the respective breed associations for the Ayrshire, Brown Swiss, Guernsey, Holstein-Friesian, and Jersey cows, and for Holstein-Friesian and Guernsey bulls. Although no models

have been prepared for Ayrshire, Brown Swiss, and Jersey bulls, the illustrations given have been submitted by the respective associations as representing bulls typical of the breed. Such standards as these are helpful in fixing in one's mind the ideal form toward which the

breed associations are working.

Dairy form may be distinguished from beef form by referring to figures 1 and 2. When the difference is as great as this, it is readily seen. However, one cow may be only slightly poorer in dairy conformation than another. In such a case the various points must be balanced one against the other, and the exactness of such balancing is what determines whether or not a person can judge accurately.

Dairy cows of good conformation are illustrated in figures 2 and 10. These are good producers, and they also compare fairly well with the type fixed as the standard by the breed associations, shown on pages

14 to 19.

Not all high producers have the pleasing conformation possessed by these animals, nor are all animals of this conformation high producers; but the outstanding points of conformation are, in the main, to be found on most cows of high-producing ability.

OTHER DESIRABLE POINTS IN CONFORMATION

The aim of breeders of dairy cattle is to combine good type and high production. The standard of type has been fixed arbitrarily by the breeders, but at the same time ability to produce has been kept in mind. A large, well-shaped udder is a valuable point on any dairy cow; but it is more valuable when it appears on one that is straight in the back, wide between the two hip bones, and wide also between the hip bones and the pin bones, because such points add to the beauty of the animal and enhance its selling value. These points of conformation, although they may not show a positive correlation with production, should nevertheless be kept constantly in mind while judging. A U-neck or a narrow forehead and muzzle may be found on a high-producing cow, but the standard of breed type requires that the neck be straight or gently curved and that the forehead and muzzle be broad; therefore, consideration should be given to such points, and deductions must be made according to the severity of the defects.

THE SCORE CARD

The dairy-cow score cards shown on pages 26 to 31 give the relative importance of the various points to be considered in judging. It should be noted that when the single items are considered the greatest weights are given to mammary system, dairy temperament, body capacity and size. These major points should always be kept in mind. The minor points should not be disregarded, but they need to be considered carefully only when the animals being compared are practically alike in the major points. In order to make the score cards more useful a diagram is given in figure 11 which names and locates the various parts referred to on the score cards.

As facts accumulate from research and experimental work, a revision of the list of points of conformation that are thought to be significant may become necessary. Although it is difficult to give a correct value as to the relative importance of the various characters

that are listed, it is thought that most of the points shown on the general score card have some bearing on the final valuation of the animal.

An accurate score on any animal cannot be made until a clear picture of the ideal or perfect animal has been fixed in mind. Work with the score card will help to create this mental picture, especially if the beginner can work with animals that are nearly perfect or approach the ideal type. Where such animals are not available for study, photographs of the winners at some of the larger cattle shows, or models of the ideal types previously mentioned (figs. 12 to 21, inclusive) may be used to fix the ideal type in mind.

Score cards for the different breeds of dairy cattle have been published by the corresponding associations. The purpose of these cards

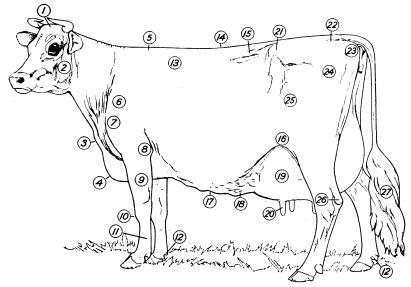


FIGURE 11.—Diagram of cow, showing names and location of parts: 1, Poll; 2, jaw; 3, dewlap; 4, brisket; 5, withers; 6, shoulder; 7, point of shoulder; 8, point of elbow; 9, forearm; 10, knee; 11, shank; 12, dewclaw; 13, crop; 14, chine; 15, loin; 16, flank; 17, milk well; 18, milk vein; 19, udder; 20, teat; 21, hip point; 22, rump; 23, pln bone; 24, thurl; 25, stifle; 26, hock; 27, switch.

is to provide a basis for evaluating the points of conformation on individual animals and thus to encourage the development of what is considered by the breeders, through their associations, as the ideal type. Although the score cards for the different breeds are very similar, especially for the more important points, they differ in some of the lesser details. To become proficient in judging any one breed, therefore, careful study should be given to the score card for that breed.

Copies of the score cards of the various breeds are found on pages 26 to 30. A general score card based on the indication of capacity for production is shown on page 31. This may be used for any breed. It will be noted that many of the minor points found on the breed score cards have been omitted on this general card. When the general score card is used, allowance must be made for certain breed characteristics, such as size and color.

HOW TO USE THE SCORE CARD

The beginner should first become familiar with the location and name of each point or part of the animal. The animal to be scored is led past the scorer at a distance of 20 to 30 feet. This permits a good general view; furthermore, the movement of the animal will indicate its alertness. At this time the points to be noted are the general appearance as to type, health, and vigor, and the relative size of the head, neck, and body. Are they properly proportioned? Are they well joined together? A careful observation should also be made of the straightness of back, slope of rump, and length of legs. How do these compare with the ideal which the judge must always have in mind? The view from the rear and the front should like-

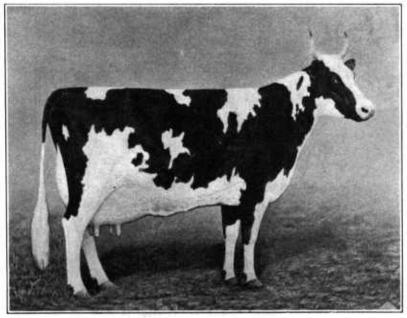


FIGURE 12 .- Ideal-type Ayrshire cow.

wise be made while the animal is moving and the width of body and chest and the general carriage noted. All these points should also be viewed from a distance while the animal is standing.

SCORING

There are various ways of grading or scoring an animal. Some prefer to make small deductions from the perfect score of each point; for example, if the perfect score of the udder is 20 the animal scored might be cut 1 or 1½ points, making the actual score 19 or 18½. Perhaps a better way is to consider separately each point for which there is a numerical value on the score card and decide whether this point is perfect (1), very slightly defective (0.9), slightly defective (0.8), defective (0.7), markedly defective (0.6), or poor (0.5). Then by multiplying the perfect score for each point by the value given to it, the final score is obtained. The sum of the scores for the vari-

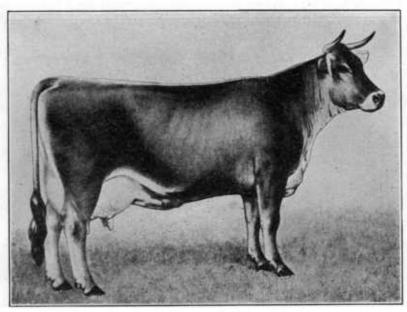


FIGURE 13.—Ideal-type Brown Swiss cow.

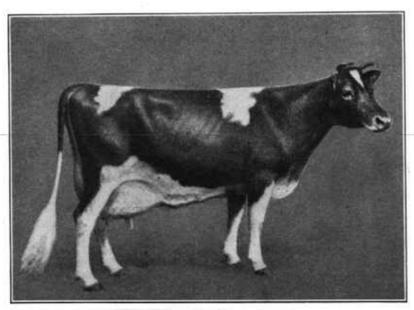


FIGURE 14.—Ideal-type Guernsey cow.

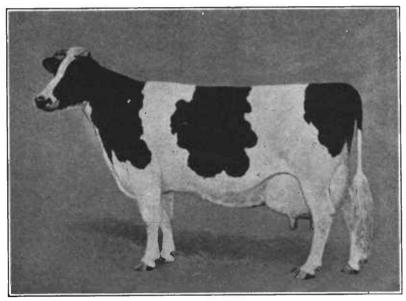


FIGURE 15.—Ideal-type Holstein-Friesian cow.

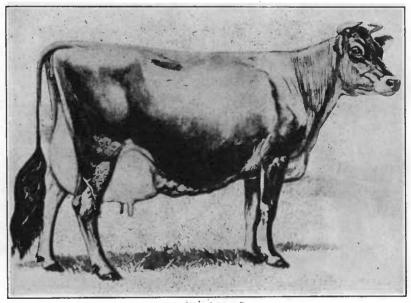


FIGURE 16.—Ideal-type Jersey cow.

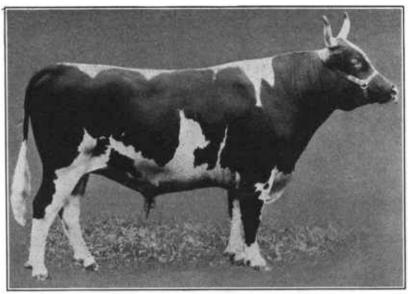


FIGURE 17.—Typical Ayrshire bull.

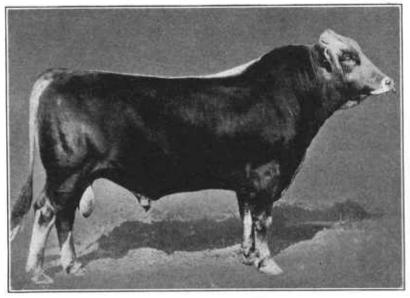


FIGURE 18.—Typical Brown Swiss bull.

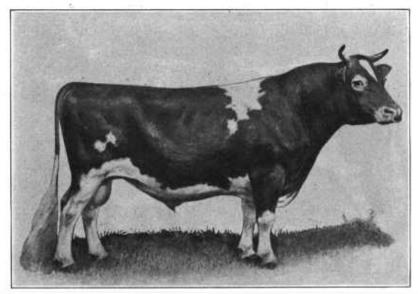


FIGURE 19.—Ideal-type Guernsey bull.

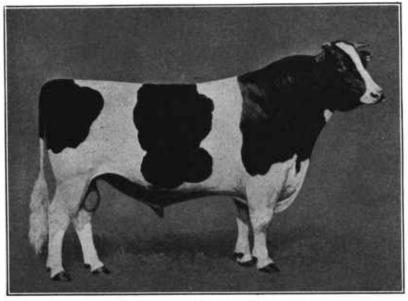


FIGURE 20.—Ideal-type Holstein-Friesian bull.

ous points gives the total score of the animal. An example of the way in which this is done is found in the general dairy cow score card on page 31.

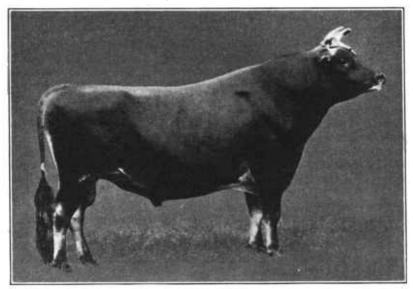


FIGURE 21.—Typical Jersey bull.

COMPARATIVE JUDGING

The powers of observation are developed more rapidly and the most important items to be considered in judging are more firmly established by comparative judging than by the scoring method.

The discussion of comparative judging as applied to teaching and judging contests deals with methods that have been followed with little variation for many years. The Bureau of Dairy Industry in 1930 proposed a plan whereby both type and production records may be used in placing a ring of animals. The plan has been tried successfully in numerous places. However, for the benefit of those desiring to conduct comparative-judging classes and judging contests in the old manner the following observations and tabulations are included.

CHOOSING A CLASS OF ANIMALS TO BE JUDGED

A group of animals to be judged is called a class or a ring. For practice judging and for contest work four is the number of animals most commonly used, although a larger number would more nearly simulate show-ring conditions. The animals in a class should be of the same sex and of nearly the same age. They should be selected with the aim of assembling animals fairly uniform in conformation but with enough differences so there will be little possibility of different placing by two competent judges. In other words, when a person is learning to use his judgment concerning the importance of the various points of conformation, he should work on classes of animals that have fairly distinct correct placings.

METHODS OF OBSERVATION

The animals should first be lettered at random, A, B, C, D, etc. This may be done by marking the letters on cardboard to hang on the animals or on the attendants. It is best to lead the animals in alphabetical order before the judges and to keep the animals in that

order throughout the observation.

The whole class of animals is led past the judges at a distance of about 30 feet. If facilities permit, the class should be led in a circle having a radius of about 30 feet, with the judges in the center, for about 3 minutes. The animals are led in one direction for half the time and in the opposite direction for the other half. This will expose both sides to the view of the judges. During this time, as in the scoring by use of the score card, a careful observation is made of the general appearance and carriage. Individual points, such as size, length and depth of the body, straightness of the back and the rump, fullness of the chest and the barrel, attachment of the udder, and shape of the head are observed; but these must be viewed from the standpoint of the whole animal rather than from that of the individual parts.

The animals are then lined up side by side a few feet apart to give the judges the front and rear views from a distance and from close-up. This should occupy about 3 minutes. At this time comparisons are made of such points as the head, the width of the chest and the barrel, the width of the rear udder, and the width of the

pelvic bones.

The animals are again lined up in single file to give the judges a side view at a distance of 20 to 30 feet. This will allow a further comparison of the points observed while the animals were in motion and should take about 3 minutes. While the animals are standing in this position the final close inspection is made and should take about 6 minutes. At this time such points as the quality of the hair and the hide, the texture of the udder, and the smoothness of the covering are considered. This close inspection is made mainly to confirm the decisions that have already been reached and to take what notes are needed for giving reasons for the placings.

HANDLING THE ANIMAL

In judging contests handling the animals is often prohibited. Under such circumstances it is assumed there are no defects in any animal not visible to the eye. When handling is permitted, it is well to approach the animal with care. Rough handling may annoy it and make observation difficult, if not impossible. Movements of persons while judging should be slow and noiseless. Not more than five or six persons should be allowed to handle an animal at one time, and even fewer than these would make observation easier for the judges and cause less annoyance to the animal.

PLACING AND REASONS

After closely inspecting the animal, each contestant marks his placings on a card and hands it to the instructor or official judge. Giving reasons for the placings is a good practice and should be required for every class where practical. The reasons show to what

extent the observations have been correct. If written reasons are required it is customary to allow 10 to 20 minutes for writing them. This should be done without looking at the animals. The points of such animal should be fixed so clearly in mind that reasons can be given from memory. If reasons are given orally, 2 to 3 minutes are usually allowed in each class or ring judged.

A convenient form of card to use is shown below. This should be printed on fairly heavy paper that does not require a stiff back when

used in the ring. A card 5 by 8 inches is a convenient size.

CARD FOR PLACINGS AND REASONS

Student's name of	or number			 	
Placings: 1st	, 2d	, 3d	, 4th	 	
Reasons for placi	_				

HOW TO GIVE REASONS

The reasons for placing must be short and concise. Oral reasons should be given slowly but without hesitation. Comparisons should be specific rather than general. It is not desirable to say that one udder is better than another, but rather that it is larger or less meaty, or better for other specific reasons. The points should be compared in the order of importance. For example, if A distinctly excels B in both length and depth of body, and also in the conformation of the head and straightness of back, it is well to mention the body capacity first. Similarly, the udder comparison should be made first if the differences are outstanding. The following, though somewhat brief, is suggested as a desirable form of reasons:

I place this class of (name of class) B, D, C, A. I place B over

I place this class of (name of class) B, D, C, A. I place B over D because she has a larger barrel, being longer and deeper in the body with a wider spring of rib. Her udder is larger, has more evenly developed quarters, and the teats are more evenly placed.

I place D over C because she is fuller in the chest and has a straighter back that carries out more nearly level at the rump. Her

udder is somewhat larger than that of C.

I place C over A because A has less of the dairy temperament, being inclined to beefiness. A is heavier over the withers than C, and her udder is also more meaty than that of C.

SPECIAL PLACING CARDS

Persons who have not had an opportunity to learn how to give reasons often take part in judging contests at fairs and cattle shows and are graded on their ability to judge. For such persons a special placing card is desirable. A card which has been adapted particularly for use in vocational students' contests and class work may be used on such occasions. A card filled out to illustrate its use is presented.

DAIRY-CATTLE PLACING CARD FOR VOCATIONAL STUDENTS' CONTEST

Contestant's name or number					
Points for comparison		Placings 1			
1 omes for comparison	First	Second	Third	Fourth	Grade
Body, capacity, and size: Depth, width, and length of body; full size for breed	$\left\{egin{array}{c} \mathrm{d} \ \mathrm{A} \end{array} ight.$	a D	e B	h C	70
2. Dairy temperament: Tendency to leanness; angularity; absence of beefiness at neck, withers, brisket, back, and thigh	$\left. egin{array}{c} \mathbf{a} \\ \mathbf{C} \end{array} \right.$	d A	c 1)	h B	70
 Mammary system: Size, shape, attachment, and soundness of udder; size and placement of teats 	{ d D	a A	b B	c C	100
4. Health and vigor: Absence of indications of frailty, delicacy, weakness of constitution, sickness, and lack of fertility.	$\left.\begin{array}{c} \operatorname{d} \\ \operatorname{B} \end{array}\right.$	a A	b C	D	40
Sum of above grades					280
Average grade (sum÷4).	$\left\{egin{array}{c} d \ A \end{array} ight.$	a D	c C	b B	70 85
Sum of average grade on comparative points and on final placings					155
Contestant's final score (sum ÷2)					78

¹ The correct placings are given in small letters and the contestant's placings in capital letters.

The essential feature of this card is that it provides for a grouping of points so the animals may be placed according to their rank in each of the groups. The contestant himself is subsequently graded on his placing within each group of points as well as on his placing for the class of animals as a whole.

GRADING

In a judging contest or when a grade on the judge's placing is necessary for instructional purposes, grading on both placings and reasons requires a comparison of the contestant's placings and reasons

with those of the official judge or instructor.

The placings are usually graded by the use of an arbitrary numerical standard, deductions being made according to the extent that the animals are placed out of the correct order. For example, if four animals in a class are marked A, B, C, and D, respectively, and the correct order of placing as determined by the official judge is ACDB, the contestant making the correct placing would be graded 100. But if the contestant reverses any two adjacent animals, placing the class ACBD, ADCB, or CADB, he would be graded 85. The possible combinations of placings with their respective scores for a class of four animals is shown in table 1.

Table 1.—Standard for grading placings

ABCD	ABDC 100 ABCD 85 ADBC 85 ADCB 70 ACBD 70 ACBD 55 BADC 85 BACD 70 BDAC 70 BDAC 70 BDCA 55 BCAD 55 BCAD 55 DBCA 40 DABC 55 DBCA 40 DCAB 40 DCAB 40 DCBA 40 CBDA 40 CBDA 25 CDAB 40 CBDA 25 CDAB 25 CDBA 10	ACBD 100 ACDB 85 ABCD 85 ABCD 86 ABDC 70 ADCB 70 ADBC 55 CABD 70 CBAD 70 CBAD 55 CDBA 40 BACD 55 BCAD 55 BCAD 55 BCAD 40 BDAC 40 BDAC 40 BDCA 40 BCA 40	ACDB 100 ACBD 85 ADCB 85 ADBC 70 ABCD 55 CADB 85 CADB 85 CADB 70 CDAB 70 CDBA 55 CBDA 40 DACB 75 DCAB 55 DCBA 40 DBCA 25 BADC 40 BCAD 55 BADC 40 BCAD 55 BADC 40 BCAD 55 BADC 40 BCAD 40	ADBC 100 ADCB 85 ABDC 85 ABCD 70 ACDB 70 ACDB 55 DABC 85 DACB 70 DBAC 70 DBAC 55 DCAB 55 DCAB 40 BADC 55 BDAC 55 BDAC 55 BDAC 55 BDAC 55 BDAC 55 CABD 40 BCAD 40 BCAD 40 BCDA 25 CABD 40 CDAB 25 CABD 10	ADCB 100 ADBC 85 ACDB 85 ACBD 70 ABBCD 55 DACB 85 DABC 70 DCAB 70 DCBA 55 DBCA 40 CADB 55 CDAB 55 CDAB 55 CDBA 40 CADB 55 CDBA 40 CBAD 55 CDBA 40 CBAD 55 CDBA 40 CBDA 40 CBDA 40 CBDA 40 BDAC 55 BACD 40 BDAC 55 BACD 40 BDAC 55 BACD 40 BDAC 40 BDAC 40 BDAC 25 BCAD 25 BCAD 25 BCAD 25
BACD 100	BADC 100	BCAD 100	BCDA 100	BDAC 100	RDCA 100
BACD 100 BADC 85 BCAD 85 BCAD 70 BDAC 70 BDAC 70 BDCA 55 ABCD 85 ABDC 70 ACDB 55 ADBC 55 ADBC 40 CBAD 70 CBDA 55 CABD 55 CABD 55 CABB 40 CDAB 25 DBAC 55 DBCA 40 DACB 25 DCAB 10	BADC 100 BACD 85 BDAC 85 BDCA 70 BCDA 55 ABDC 70 ADDC 85 ABCD 70 ADDBC 55 ACBD 55 ACBD 40 DBAC 70 DBCA 55 DABC 55 DABC 55 DABC 55 CBDA 40 CABD 40 CADB 25 CDAB 10	BCAD	BCDA 100 BCAD 85 BDCA 85 BDAC 70 BACD 70 BACD 55 CBDA 55 CBAD 70 CDBA 55 CABB 55 CADB 40 DBCA 70 DBAC 55 DCBA 55 DCBB 40 DACB 25 ABDC 40 ACDB 25 ADCB 10	BDAC 100 BDCA 85 BACD 70 BCDA 70 BCDA 70 BCAD 55 DBAC 85 DBCA 70 DABC 70 DABC 70 DACB 55 DCAB 40 ABDC 70 ABCD 55 ADBC 55 ADBC 55 ADBC 55 ADBC 55 ADBC 55 CBDA 40 CDBA 40 CDBA 40 CDBA 40 CDBA 40 CDAB 25 CADB 10	BDCA 100 BDAC 85 BCDA 85 BCAD 70 BADC 70 BACD 55 DBCA 85 DBAC 70 DCBA 55 DACB 55 DACB 40 CBDA 70 CBAD 55 CDBA 55 CDAB 40 CADB 40 ADCB 40 ADCB 40 ADCB 25 ACDB 10
CABD 100 CADB 85 CBAD 70 CDAB 70 CDBA 55 ACBD 85 ACDB 70 ABDC 55 ADBC 40 BCAD 70 BCAD 40 BCAD 55 BACD 55	CADB 100 CABD 85 CDAB 85 CDBAD 70 CBAD 55 ACBD 70 ADDB 85 ACBD 70 ADDC 55 ABDC 40 DCAB 70 DCBA 55 DACB 5	CBAD	CBDA 100 CBAD 85 CDBA 85 CDBA 70 CABB 70 CABB 70 CADB 55 BCDA 85 BCAD 70 BDCA 55 BACD 55 BACD 55 BACD 40 DCBA 70 DCBA 55 DBCA	CDAB 100 CDBA 85 CADB 85 CADB 70 CBDA 70 CBDA 70 CBAD 55 DCAB 85 DCBA 70 DACB 70 DACB 70 DACB 55 DBCA 55 DBCA 55 DBCA 40 ACDB 70 ACDB 55 ADCB 25 BCAD 40 BDCA 55 BCAD 40 BDAC 25 BACD 25 BACD 25	CDBA 100 CDAB 85 CBDA 85 CBDA 85 CBAD 70 CABD 70 CABD 55 DCBA 85 DCAB 70 DBCA 55 DACB 55 DACB 55 DACB 40 BCDA 70 BCAD 55 BDCA 55 BDCA 55 BDCA 55 ADCAD 40 BACD 25 ADCB 40

Table 1.—Standard for grading placings—Continued

DABC 100	DACB 100	DBAC 100	DBCA 100	DCAB 100	DCBA 100
DACB 85	DABC 85	DBCA 85	DBAC 85	DCBA 85	DCAB 85
DBAC 85	DCAB 85	DABC 85	DCBA 85	DACB 85	DBCA 85
DBCA 70	DCBA 70	DACB 70		DABC 70	
			DCAB 70		DBAC 70
DCAB 70	DBAC 70	DCBA 70	DABC 70	DBCA 70	DACB 70
DCBA 55	DBCA 55	DCAB 55	DACB 55	DBAC 55	DABC 55
ADBC 85	ADCB 85	BDAC 85	BDCA 85	CDAB 85	CDBA 85
ADCB 70	ADBC 70	BDCA 70	BDAC 70	CDBA 70	CDAB 70
ABDC 70	ACDB 70	BADC 70	BCDA 70	CADB 70	CBDA 70
ABCD 55	ACBD 55	BACD 55	BCAD 55	CABD 55	CBAD 55
ACDB 55	ABDC 55	BCDA 55	BADC 55	CBDA 55	CADB 55
ACBD 40	ABCD 40	BCAD 40	BACD 40	CBAD 40	CABD 40
BDAC 70	CDAB 70	ADBC 70	CDBA 70	ADCB 70	BDCA 70
BDCA 55	CDBA 55	ADCB 55	CDAB 55	ADBC 55	BDAC 55
BADC 55	CADB 55	ABDC 55	CBDA 55	ACDB 55	BCDA 55
BACD 40	CABD 40	ABCD 40	CBAD 40	ACBD 40	BCAD 40
BCDA 40	CBDA 40	ACDB 40	CADB 40	ABDC 40	BADC 40
BCAD 25	CBAD 25	ACBD 25	CABD 25	ABCD 25	BACD 25
CDAB 55	BDAC 55	CDBA 55	ADBC 55	BDCA 55	ADCB 55
CDBA 40	BDCA 40	CDAB 40	ADCB 40	BDAC 40	ADBC 40
CADB 40	BADC 40	CBDA 40	ABDC 40	BCDA 40	ACDB 40
CABD 25	BACD 25	CBAD 25	ABCD 25	BCAD 25	ACBD 25
CBDA 25	BCDA 25	CADB 25	ACDB 25	BADC 25	ABDC 25
CBAD 10	BCAD 10	CABD 10	ACBD 10	BACD 10	ABCD 10
					112021111111111111111111111111111111111
	'				

IMPORTANCE OF GIVING REASONS

If a contestant is to be graded accurately on his ability to judge a class of animals, it is necessary for the official judge to know whether or not the contestant observed all the points wherein the animals differed. The giving of reasons for the placings is by far the best way to get this information. These may be either written or oral. The use of a special placing card such as the one shown on page 22 is perhaps the next best; and merely giving one placing on the whole class is the least accurate method.

JUDGING HEIFERS

In judging dairy heifers one must have in mind what the possible development of the animals will be and how much they will produce when mature. The heifer of exceptionally good conformation probably has a better chance of developing into a cow of good type than does one of very poor conformation. However, owing to the fact that many animals change markedly from calfhood to maturity, the judging of heifers is far less significant and satisfactory than is

the judging of cows.

The points to be considered in judging heifers are essentially the same as in judging cows. Less emphasis, however, should be placed on mammary development, for many calves and heifers have seemingly well-developed udders for their age because of heavy deposits of fat rather than mammary-gland tissues. Furthermore, the milk veins and wells are, as a rule, not well developed in calves and young heifers. Moreover, dairy temperament is not so pronounced in heifers as in cows. Especially is this true of those that are in calf. These are likely to be heavy at the withers and to appear somewhat fatter than the condition that is usually associated with the best dairy temperament. Heifers should be large for their age and should show vigor and a thrifty, growing condition.

JUDGING BULLS

From the standpoint of economical dairy production the best bull is the one whose daughters will develop into the best cows. It is

obvious that this fact cannot be determined in the judging ring. Furthermore, a bull of good conformation and from a high-producing dam may not transmit these characters to his daughters. Therefore, the best way to select a bull is by the performance of his daughters. If a large proportion of the daughters are of good type and are high producers, it is to be expected that the sire will transmit these characteristics to his later daughters regardless of what his own conformation or the record of his dam may be.

When the production records of the daughters of a bull are not available, the records of his dam and her conformation and also the

records of his sisters should be used as a guide.

Good size for his age and a long and deep body with full chest are considered desirable points in a bull. He should also be in a thrifty condition and should show masculinity and vigor. A bull should be examined for indications of unsoundness in legs and feet, the cause of many bulls becoming unserviceable. The neck should be medium in length, with a prominent crest. Such points as straightness of back, thin hind quarters, level rump, broad head, clean-cut face add to the beauty of the animal and are usually considered in the show ring; but as with cows, there is no evidence that these factors are associated with the ability to transmit production.

SCALE OF POINTS FOR VARIOUS BREEDS

AYRSHIRE COW OR HEIFER

ANATOMY	Perfect score
Head	9
Forehead, reasonably broad between the eyes and slightly dished1	
Face, of medium length, clean cut, feminine; the bridge of the nose straight to nostrils1	
Muzzle, broad and strong, with large open nostrils2	
Jaws, wide at the base, well muscled, and strong 1	/ /,
Eyes, moderately large, placid, full, and bright 1	í/ . ,
	/ ,
Horns, small at base, not coarse nor too long; inclining upward 11	/ 2
Neck, medium length, smoothly blending with shoulders and throa showing feminine refinement	t, 2
Shoulders, 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	10
shoulder blades; hearly and armly attached to the body wan, tops of the	5
blades not extending to the top of chine	
Chest, full, and wide between and back of forearms; brisket light an	5
refinedChine, straight, strong, open jointed, narrow at the top, nicely blending in	
shoulders and a well-sprung rib	3
snoulders and a weir-spring rio	
Crops, full, level with shoulders	1
Barrel, medium length, deep, but strongly held up; rib, well sprung; bone	10
long, flat, and wide apartLoin, broad, strong, and level with hips	
Loin, broad, strong, and level with information line extending level)	
Rump or pelvic area, wide, long, and roomy; top line extending level	
from loin to and including tail headHips, wide, with points rather sharply defined and level with	
Pin bones, wide apart and nearly level with hip bones; well-	12
defined, not overlaid with fat	14
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, long and fine, with full switch	Perf	
Flank, deep, skightly arched, and refined. Thighs, 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, widely and squarely set under body; clean flat bone, from tegs 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, mellow, elastic hide of medium thickness; hair fine and soft. 4 Mammary system. 8 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 of 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. Veining and milk wells, mammary veins large, long, tortuous, branching, and entering large or numerous milk wells; small veins clearly defined on udder. Perfect anatomy score. 100 100 100 101 101 102 103 104 105 105 106 107 108 108 108 109 109 109 109 109		
Thighs, 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	Flank deen slightly arched and refined	
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	Thighs, 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	-
Mammary system	legs straight; hind legs nearly straight when viewed from rear; hocks and pasterns neatly and firmly molded; feet round, with plenty of depth	
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	Hide and hair, mellow, elastic hide of medium thickness; hair fine and soft_	4
junction at body wall; carried wide and high behind, no evidence of breaking of tissues supporting front quarters nor of dropping of floor of udder	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	
Size, shape, and placement of teats, convenient size, symmetrical, and nearly uniform, each hanging perpendicularly under the quarter; funnel-shaped teats objectionable	junction at body wall; carried wide and high behind, no evidence of breaking of tissues supporting front quarters nor of dropping of floor of udder6	
branching, and entering large or numerous milk wells; small veins clearly defined on udder	Size, shape, and placement of teats, convenient size, symmetrical, and nearly uniform, each hanging perpendicularly under the quarter; funnel-shaped teats objectionable	
In addition to the foregoing anatomy score of 100 points, which is applicable to all dairy cows, it has been deemed expedient to consider the following factors covering desirable Ayrshire breed characteristics. To use this supplementary schedule, score the number of points in which the animal is deficient in each of the following breed characteristics, and deduct from the foregoing anatomy score the total number of points in which the animal is deficient. Deduct up to	branching, and entering large or numerous milk wells; small veins clearly defined on udder5	
In addition to the foregoing anatomy score of 100 points, which is applicable to all dairy cows, it has been deemed expedient to consider the following factors covering desirable Ayrshire breed characteristics. To use this supplementary schedule, score the number of points in which the animal is deficient in each of the following breed characteristics, and deduct from the foregoing anatomy score the total number of points in which the animal is deficient. Deduct up to— Style and quality, alert but docile: having an impressive carriage; graceful walk; and, above all, displaying evidence of feminine refinement and outstanding dairy character— Symmetry and balance, a symmetrical balancing of all the parts and the proper proportioning of the various parts to each other— Size and weight, mature cows should weigh from 1,100 to 1,400 pounds, depending on period of lactation— Color, red of any shade, mahogany, brown, or these with white, or white, each color clearly defined. Distinctive red and white markings preferable; black or brindle markings strongly objectionable— Total deductions possible— BROWN SWISS COW OR HEIFER Points Head— BROWN SWISS COW OR HEIFER Points Head— Size and form, medium and rather long— Ears, fringed inside with light-colored hair, medium size, and carried alert— Muzzle, large and square, with mouth surrounded by mealy colored band, nose and tongue black— BROWN SWISH SURROUNDED STATE	Perfect anatomy score	100
to all dairy cows, it has been deemed expedient to consider the following factors covering desirable Ayrshire breed characteristics. To use this supplementary schedule, score the number of points in which the animal is deficient in each of the following breed characteristics, and deduct from the foregoing anatomy score the total number of points in which the animal is deficient. Deduct up to— Style and quality, alert but docile; having an impressive carriage; graceful walk; and, above all, displaying evidence of feminine refinement and outstanding dairy character————————————————————————————————————	BREED CHARACTERISTICS	
Style and quality, alert but docile; having an impressive carriage; graceful walk; and, above all, displaying evidence of feminine refinement and outstanding dairy character	to all dairy cows, it has been deemed expedient to consider the following factors covering desirable Ayrshire breed characteristics. To use this supplementary schedule, score the number of points in which animal is deficient in each of the following breed characteristics, and dediction the foregoing anatomy score the total number of points in which is the following breed characteristics.	ing the uct
Style and quality, alert but docile; having an impressive carriage; grace- ful walk; and, above all, displaying evidence of feminine refinement and outstanding dairy character	Deda	
Symmetry and balance, a symmetrical balancing of all the parts and the proper proportioning of the various parts to each other	Style and quality, alert but docile; having an impressive carriage; graceful walk; and, above all, displaying evidence of feminine refinement and	
depending on period of lactation	Symmetry and balance, a symmetrical balancing of all the parts and the	
each color clearly defined. Distinctive red and white markings preferable; black or brindle markings strongly objectionable	depending on period of lactation	4
BROWN SWISS COW OR HEIFER Points 10	each color clearly defined. Distinctive red and white markings prefer-	2
Head		20
Size and form, medium and rather long		
Face, dished, narrow between horns, and wide between eyes2 Ears, fringed inside with light-colored hair, medium size, and carried alert1 Muzzle, large and square, with mouth surrounded by mealy colored band, nose and tongue black2 Eyes, full and bright	Size and form, medium and rather long 2	10
Muzzle, large and square, with mouth surrounded by mealy colored band, nose and tongue black	Face, dished, narrow between horns, and wide between eyes 2 Ears, fringed inside with light-colored hair, medium size, and car-	
Eyes, full and bright2	Muzzle, large and square, with mouth surrounded by mealy colored	

$m{p}$	oints
Neck, of good length, throat clean, neatly joined to head and shoulders, moderatedly thin at the withers	
Forequarters	
Body	
Back, level to setting of tail and broad across the loin 6 Ribs, long and broad, wide apart, and well sprung 3	
Barrel, long, deep, and well rounded 4 Hind quarters	
Hips, wide, pin bones high and wide apart, rump long and level from hip bones to tail setting6	
Thighs, flat and wide apart, giving ample room for udder 2 Tail, slender, well set on, with good switch 2	
Legs, of medium length and straightness, with good hoofs	. 2
Medium thickness, mellow, and elastic 3	
Color, shades from dark to light brown, at some seasons of the year gray; white splashes on underline of belly are objectionable but do not disqualify; dark smoky skin objectionable; hair between horns usually lighter shade than body	
UdderSize, long, wide, deep but not pendulous or fleshy6	
Attachment, firmly attached to the body 4	:
Veins, udder veins well developed and plainly visible 2 Balance, extending well up behind and far forward, quarters even_ 5	
Sole, nearly level and not indented between teats 2	
Teats, of good uniform length and size, regularly and squarely placed6	
Texture, mellow, free from meatiness 7	
Mammary veins, large, long, tortuous, elastic, and entering good wells	6
Disposition, quiet but alert	. 2
General appearance Total	
	100
DUTCH BELTED COW	
1. Body color, black, with a clearly defined, continuous white belt. The belt to be of medium width, beginning behind the shoulder and extending nearly to the hips	
2. Head, comparatively long and somewhat dishing, broad between the eyes. Poll, prominent; muzzle fine, dark tongue	•
3. Eyes, black, full, and mild. Horns long compared with their diameter—4. Neck, fine and moderately thin and should harmonize in symmetry with	t
the head and shoulders5. Shoulders, fine at the top, becoming deep and broad as they extend back	
ward and downward, with a low chest6. Barrel, large and deep with well-developed abdomen; ribs well rounded and free from fat	l
7. Hips, broad, and chine level, with full loin	. 10
8. Rump, high, long, and broad	. 6
9. Hindquarters, long and deep, rear line incurving; tail, long, slim, tapering to a full switch	. 8
 10. Legs, short, clean, standing well apart 11. Udder, large, well-developed front and rear; teats of convenient size and apart; mammary veins, large, long, and crooked, entering large 	. 3 !
orifices	$\frac{20}{2}$
13. Hair, fine and soft; skin of moderate thickness of a rich, dark, or yellow	
aalaw	7
color	. 3 . 4
color	. 3 . 4

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
a lean face; wide mouth and broad muzzle with open nostrils; strong jaws; full, bright eyes with gentle expression; forehead broad between the eyes and moderately dishing; bridge of nose straight	5
Horns, yellow, small at base; of medium length; inclining forward; not too spreading	1
Neck, long and thin; clean throat, smoothly blending into shoulders	2 2
ing neat junction with the bodyChest, wide, and deep at heart with least possible depression back of the shoulders	2 4
Back, appearing straight from withers to hipsLoin, strong, broad, and nearly level laterally; width carried forward to	$\frac{1}{5}$
junction with the ribsHips, wide apart approximately level with the back; free from excess tissue	2
Rump, long, continuing with level of the back; approximately level between hip bone and pin bones. Pin bones well apart	4
Thurls, wide apart and high	$\frac{2}{2}$
Barrel, deep and long, with well-sprung ribs. Individual ribs, long, flat, wide apart, and free from excess tissue	10
Thighs, incurving when viewed from side, thin and wide apart when viewed from rear; well cut up between the thighs	•
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	2
Hide, loose and pliable, and not thick, with oily feeling: hair, fine and silky	$\bar{3}$
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 skinVeins prominent	$\frac{3}{1}$
Attachment to body, strong, long, and wide	4
Extending well forward; extending well up behindSole level between tests	4 2
Sole, level between teats Teats, of even, convenient size; cylindrical in shape; well apart and squarely placed, plumb	3
Mammary veins, long, tortuous, prominent, and branching, with large, numerous wells	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 in 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 colored	60
Color markings, a shade of fawn with white markings	$\frac{20}{2}$
Size, mature cows, about 1,100 pounds in milking condition	$\frac{2}{2}$
Total	100
HOLSTEIN-FRIESIAN COW	
Face, of medium length; clean cut; feminine; the bridge of the nose	2
straight	1
Muzzle, broad, with strong lips; nostrils, large and open; jaws strong Ears, of medium size; of fine texture; well carried	3
Eyes, large; full; mild; bright	$\frac{1}{2}$
Horns, small; tapering finely toward the tips; set moderately narrow at base; inclining forward; well curved inward	1
Neck, long; fine and clean at junction with the head; evenly and smoothly joined to shoulder	
Joined to shouldet	3

Po	ints
Shoulders, slightly lower than the hips; smooth and rounding over tops;	
moderately broad and full at sides	3
Crops, full; level with the shouldersChine, straight; strong; broadly developed, with open vertebrae	$\frac{4}{3}$
Loin and hips, broad; level or nearly level between the hip bones; level and	.,
strong laterally; spreading from chine broadly and nearly level; hip	
bones fairly prominent	6
Rump, long; broad with roomy pelvis; nearly level laterally; full above the	
thurls; carried out straight to tail head	6
Pin bones, wide between; nearly level with hips	$\frac{2}{2}$
Thurls, high; broad throughTail head and tail, strong at base without coarseness; the setting well back;	2
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; strongly and trimly held up	9
Flanks, deep: full	2
Thighs, wide; deep; straight behind; wide and moderately full at the out-	
sides; twist well cut out and filled with development of udder; escutcheon	
well defined	2
Mammary veins, large, tortuous, entering large orifices or double extension;	
with additional developments, such as branches and connections entering	6
numerous orificesUdder, capacious; flexible; quarters even and of uniform texture, filling the	o
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
75. / 1	100
Total	100
JERSEY COW	
JERSEY COW DAIRY TEMPERAMENT AND CONSTITUTION	
DAIRY TEMPERAMENT AND CONSTITUTION Head, 7:	
DAIRY TEMPERAMENT AND CONSTITUTION Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium	
DAIRY TEMPERAMENT AND CONSTITUTION Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	3
DAIRY TEMPERAMENT AND CONSTITUTION Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	
DAIRY TEMPERAMENT AND CONSTITUTION Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	3
DAIRY TEMPERAMENT AND CONSTITUTION Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving B. Eyes, full and placid; ears medium size, fine, carried alert; muzzle broad, with wide-open nostrils and muscular lips; jaws strong Neck, 4:	
DAIRY TEMPERAMENT AND CONSTITUTION Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving B. Eyes, full and placid; ears medium size, fine, carried alert; muzzle broad, with wide-open nostrils and muscular lips; jaws strong. Neck, 4: Thin, rather long, with clean throat, neatly joined to head and	
DAIRY TEMPERAMENT AND CONSTITUTION Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	4
DAIRY TEMPERAMENT AND CONSTITUTION Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving B. Eyes, full and placid; ears medium size, fine, carried alert; muzzle broad, with wide-open nostrils and muscular lips; jaws strong. Neck, 4: Thin, rather long, with clean throat, neatly joined to head and	4
Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving B. Eyes, full and placid; ears medium size, fine, carried alert; muzzle broad, with wide-open nostrils and muscular lips; jaws strong. Neck, 4: Thin, rather long, with clean throat, neatly joined to head and shoulders Body, 37: A. Shoulders, light, good distance through from point to point, but thin at withers; chest deep and full between and just back of forelegs.	4
Body, 37: A. Shoulders, light, good distance through from point to point, but thin at withers; chest deep and full between and just back of forelegs. B. Ribs, amply sprung and wide apart, giving wedge shape, with deep,	4
Board temperament and constitution Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	4 4 5
Body, 37: A. Shoulders, light, good distance through from point to point, but thin at withers; chest deep and full between and just back of forelegs. B. Ribs, amply sprung and wide apart, giving wedge shape, with deep, large abdomen, firmly held up, with strong, muscular development.	4
Body, 37: A. Shoulders, light, good distance through from point to point, but thin at withers; chest deep and full between and just back of forelegs. B. Ribs, amply sprung and wide apart, giving wedge shape, with deep, large abdomen, firmly held up, with strong, muscular development. C. Back, straight and strong, with prominent spinal processes; loins	4 4 5 10
Body, 37: A. Shoulders, light, good distance through from point to point, but thin at withers; chest deep and full between and just back of forelegs. B. Ribs, amply sprung and wide apart, giving wedge shape, with deep, large abdomen, firmly held up, with sprund processes; loins broad and strong.	4 4 5 10 5
BAIRY TEMPERAMENT AND CONSTITUTION Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	4 4 5 10
BAIRY TEMPERAMENT AND CONSTITUTION Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	4 4 5 10 5 6
BAIRY TEMPERAMENT AND CONSTITUTION Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	4 4 5 10 5 6 3 3
Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	4 4 5 10 5 6 3 3
BAIRY TEMPERAMENT AND CONSTITUTION Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	4 4 5 10 5 6 3 3 2
Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	4 4 5 10 5 6 3 3
Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	4 4 5 10 5 6 3 3 2
Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	4 4 5 10 5 6 3 3 2
BAIRY TEMPERAMENT AND CONSTITUTION Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	4 4 5 10 5 6 3 3
Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	4 4 5 10 5 6 3 3 2 2 1
BAIRY TEMPERAMENT AND CONSTITUTION Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	4 4 5 10 5 6 3 3 3 2 2 1
Head, 7: A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving	4 4 5 10 5 6 3 3 3 2 2 1

Po	ints
Teats, 8: Of good and uniform length and size, regularly and squarely placed	8
Milk veins, 4: Large, long, tortuous and elastic, entering large and numerous orifices	4
SIZE AND GENERAL APPEARANCE	
Size, 4: Mature cows, 800 to 1,000 pounds General appearance, 10:	4
A symmetrical balancing of all the parts, and a proportion of parts to one another, depending on size of animal, with the general appearance of a high-class animal, with capacity for feed and productiveness at	
pail	10
Total score	100

GENERAL SCORE CARD FOR DAIRY COWS

[Based on indications of capacity for production]

	Perfect score	Value	Stu- dent's score	Instruc- tor's score
ALLOWANCES				
Body capacity and size: ² Body of such proportions in depth, width, and length as to permit sufficient scale, volume, and full weight for the breed represented.	Points 30	Percent 0.85	Points 25. 5	Points
Dairy temperament: Showing a tendency to convert feed into milk instead of into body fat and flesh, as indicated by leanness, angularity, and an absence of excess fat, especially over the withers and back, through the thighs, brisket, and neck. Mammary system: Udder large and capacious, well attached to the body, extending well up behind and far forward, not pendulous, sound, and with uniform quarters, teats of such size and so placed as to be conven-	30	.8	24. 0	
ient for milking	40	. 95	38.0	
Total score	100		87. 5	
DEDUCTIONS				
Health, constitution, and fertility: 3 The above score is allowed regardless of the condition of health, constitution, and fertility of the animal. If defects in these points are apparent, deductions must be made to the extent that the				
defects warrant	0		0	
Final score	100		87. 5	

¹ If scoring is to be made on basis of breed type, the score cards published by the breed associations should

U. S. GOVERNMENT PRINTING OFFICE: 1937

Problems is the made of basis of recent of portions and indicative of size for Ayrshire, 1,100 be used.

A Average weight as given by the respective breed associations as indicative of size for Ayrshire, 1,100 pounds; Brown Swiss, 1,250 pounds; Dutch Belted, 1,200 pounds; Guernsey, 1,100 pounds; Holstein-Friesian. 1,250 pounds; Jersey, 900 pounds.

If no defect in "health, constitution, and fertility" is observed, the sum of the 3 items under "Students' score" and "Instructor's score" is brought down as the final score.