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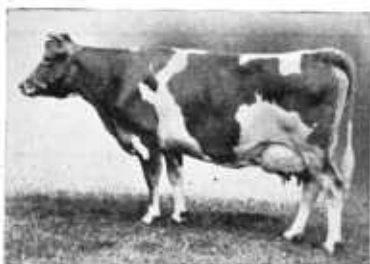
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DAIRY CATTLE
BREEDS

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SEVERAL BREEDS of cattle in the United States are recognized as dairy breeds. Although much alike in what is known as general dairy conformation, these breeds differ to some extent in certain characteristics. What these characteristics are, the factors to consider in selecting a breed, and the history of the origin and development of the breeds are questions of interest to both the beginner and the established breeder of dairy cattle. These are the topics discussed in this bulletin.

This bulletin supersedes Farmers' Bulletin 893, Breeds of Dairy Cattle.

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DAIRY CATTLE BREEDS

By AMER B. NYSTROM, *Associate Dairy Husbandman, Bureau of Dairying*

CONTENTS

	Page		Page
Dairy cattle in United States.....	3	Brown Swiss.....	13
What is a dairy breed?.....	5	Dutch Belted.....	17
Registration.....	6	Guernsey.....	20
Which breed to select.....	6	Holstein-Friesian.....	24
The score card.....	7	Jersey.....	28
Ayrshire.....	8	Breed associations.....	32

DAIRY CATTLE IN THE UNITED STATES

ACCORDING to estimates made by the United States Department of Agriculture there were about 34,000,000 dairy cattle of all ages in the United States on January 1, 1924. Three per cent of these cattle, or about 1,000,000, are purebred, and represent six breeds, namely, Ayrshire, Brown Swiss, Dutch Belted, Guernsey, Holstein-Friesian, and Jersey. The improvement that must be made in the 97 per cent that are not purebred must come largely from the 3 per cent that are purebred. Likewise, any increase in the number of our purebred dairy cows, and even the maintenance of our grade dairy herds at their present number and efficiency, will be accomplished principally through the use of purebred bulls. For these reasons purebred dairy cattle have played in the past and will play in the future a very important rôle in the dairy industry of the Nation.

NUMBER AND DISTRIBUTION OF BREEDS

Tables 1 and 2 show the number and distribution of the various breeds in the United States, by sections and by States. The information in Table 1, showing total number of each breed on January 1, 1920, was brought out by an inquiry sent to 14,000 special livestock reporters of the branch then known as the Bureau of Markets and Crop Estimates of the United States Department of Agriculture. Grades and scrubs were listed with the respective breeds to which they seemed to belong.

Table 2 shows the number of registered purebreds of the dairy breeds on January 1, 1920, as ascertained by the census.

Table 3 gives the average annual production of milk and butterfat to date (1924) of the cows having official yearly records in the breed associations.

TABLE 1.—Estimated number and percentage of cattle of dairy breeds, including purebreds and grades, in the United States, January 1, 1920, by sections

Breed	Total	United States	North Atlantic States	North Central, East	North Central, West	South Atlantic States	South Central States	Far West
		Number	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Ayrshire.....	412,000	1.8	5.8	0.8	1.9	0.7	-----	0.8
Brown Swiss.....	170,000	.9	.5	1.3	1.3	.3	-----	.4
Dutch Belted.....	157,000	6	.5	.2	.6	.3	2.3	-----
Guernsey.....	1,993,000	8.4	10.6	12.1	11.9	8.4	1.3	5.1
Holstein-Friesian.....	11,069,000	47.4	65.3	56.2	54.3	21.1	17.3	58.9
Jersey.....	9,554,000	40.9	17.3	29.4	30.0	69.2	79.1	34.8
Total.....	23,355,000	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 2.—Purebred (registered) cattle of the dairy breeds on farms in 1920, by States and sections, as shown by the census

Division and State	Total	Ayrshire	Brown Swiss	Guernsey	Holstein-Friesian	Jersey	All other breeds ¹
United States.....	916,602	30,509	8,283	79,446	528,621	231,834	37,909
Geographic Divisions:							
New England.....	85,724	9,780	349	10,311	42,721	20,305	2,258
Middle Atlantic.....	239,764	12,883	1,904	21,114	171,124	25,815	6,924
East North Central.....	289,859	3,735	4,199	29,640	185,475	57,167	9,643
West North Central.....	106,967	1,859	1,386	8,250	62,055	23,697	9,720
South Atlantic.....	49,119	519	43	5,949	15,445	25,245	1,918
East South Central.....	34,651	27	3	298	5,902	27,024	1,397
West South Central.....	43,268	60	13	263	9,724	30,650	2,558
Mountain.....	22,534	324	146	838	12,689	6,926	1,611
Pacific.....	44,716	1,322	240	2,783	23,486	15,005	1,880
New England:							
Maine.....	15,683	1,134	62	1,836	7,206	4,999	446
New Hampshire.....	10,750	1,214	75	1,151	6,695	1,348	267
Vermont.....	28,549	3,808	59	2,193	13,413	8,546	630
Massachusetts.....	18,807	1,880	80	3,348	10,006	2,904	589
Rhode Island.....	1,651	494	-----	217	542	351	47
Connecticut.....	10,284	1,250	73	1,566	4,859	2,257	279
Middle Atlantic:							
New York.....	153,037	9,521	1,347	9,749	114,662	13,411	4,347
New Jersey.....	11,538	265	23	1,747	7,810	1,368	325
Pennsylvania.....	75,189	3,097	534	9,618	48,652	11,036	2,252
East North Central:							
Ohio.....	70,882	1,021	324	4,960	38,327	23,842	2,408
Indiana.....	21,115	509	131	1,215	8,477	9,921	862
Illinois.....	36,412	202	1,385	1,369	25,124	7,317	1,015
Michigan.....	46,533	291	429	3,369	32,702	8,296	1,446
Wisconsin.....	114,917	1,712	1,930	18,727	80,845	7,791	3,912
West North Central:							
Minnesota.....	32,668	399	483	4,468	22,830	2,508	1,980
Iowa.....	20,286	271	447	1,716	10,916	3,629	3,307
Missouri.....	19,037	110	135	760	5,569	10,708	1,755
North Dakota.....	4,797	226	23	346	2,937	481	574
South Dakota.....	5,248	85	119	135	4,027	312	780
Nebraska.....	7,873	74	38	348	5,368	1,275	770
Kansas.....	17,058	694	141	477	10,408	4,784	554
South Atlantic:							
Delaware.....	1,691	1	-----	246	1,245	172	27
Maryland.....	8,668	113	9	1,867	4,073	2,323	283
District of Columbia.....	186	-----	-----	1	175	10	-----
Virginia.....	9,586	25	-----	1,696	4,160	3,223	482
West Virginia.....	4,450	272	32	333	1,134	2,546	133
North Carolina.....	7,697	44	1	789	1,613	4,978	272
South Carolina.....	5,184	4	-----	644	1,008	3,389	139
Georgia.....	8,727	14	1	305	1,700	6,224	483
Florida.....	2,930	46	-----	68	337	2,380	99
East South Central:							
Kentucky.....	8,829	20	-----	40	2,046	6,421	302
Tennessee.....	11,347	2	1	111	1,383	9,424	426
Alabama.....	6,108	4	2	46	1,142	4,608	306
Mississippi.....	8,367	1	-----	101	1,331	6,571	363
West South Central:							
Arkansas.....	6,950	3	1	19	2,001	4,627	299
Louisiana.....	3,415	1	2	94	1,009	2,201	108
Oklahoma.....	9,539	37	3	91	3,741	5,104	563
Texas.....	23,364	19	7	59	2,973	18,178	1,588

TABLE 2.—*Purebred (registered) cattle of the dairy breeds on farms in 1920, by States and sections, as shown by the census—Continued*

Division and State	Total	Ayrshire	Brown Swiss	Guernsey	Holstein-Friesian	Jersey	All other breeds ¹
Mountain:							
Montana.....	3,451	13	54	176	2,453	560	195
Idaho.....	4,138	46	48	197	2,049	1,579	219
Wyoming.....	1,071	21	14	31	747	167	91
Colorado.....	6,448	114	30	241	4,057	1,605	401
New Mexico.....	1,327	-----	-----	42	438	507	340
Arizona.....	2,772	109	-----	48	1,778	669	168
Utah.....	2,922	-----	-----	93	970	1,706	153
Nevada.....	405	21	-----	10	197	133	44
Pacific:							
Washington.....	12,720	404	69	941	7,673	3,402	231
Oregon.....	12,852	323	135	697	3,624	7,771	302
California.....	19,144	595	36	1,145	12,189	3,832	1,347

¹ Including animals reported as purebred, but with breed not specified.

TABLE 3.—*Average yearly production of milk and butterfat of the cows of different breeds that have official yearly records*

Breed	Number of cows	To what date	Milk	Butterfat	
				Quantity	Test
			<i>Pounds</i>	<i>Pounds</i>	<i>Per cent</i>
Ayrshire.....	5,790	Jan. 1, 1924	10,190	404.36	3.97
Brown Swiss.....	390	do.....	11,773	471.63	4.01
Dutch Belted.....	-----	do.....	9,771	362.34	3.71
Guernsey.....	19,631	do.....	9,359	468.3	5.00
Holstein-Friesian.....	16,094	do.....	15,508	526.0	3.39
Jersey.....	18,250	do.....	8,580	460.0	5.36

WHAT IS A DAIRY BREED?

The term "dairy breed" has been accepted by stockmen and investigators as referring to the breeds of cattle that are especially well fitted for the production of milk and butterfat. Such breeds represent the efforts made by breeders of many generations toward improving the milking capacity of certain classes of cows. Because of this fact the inherent tendency of purebred dairy cattle to produce milk is greater than that of a native or unimproved cow. This inherent capacity is transmitted to the offspring. As a result, the mating of a purebred dairy animal with a native or scrub produces a grade animal which is superior to the scrub in production and in other dairy characteristics.

A purebred dairy animal is one that meets the requirements for registration laid down by the association for that breed in the United States. A grade is the offspring resulting from mating a purebred with a scrub, or from mating animals not purebred but having close purebred ancestors. The offspring of a purebred and a grade is also a grade, and through progressive improvement such animals become high grade. The names of the breeds (Ayrshire, Brown Swiss, etc.) may refer to either purebreds or grades; but to prevent misunderstanding it is desirable to precede the breed name with the word purebred or grade.

In addition to the breeds of dairy cattle mentioned, certain other breeds having good milking qualities are kept for dairy purposes.

Such cattle, which are often referred to as dual-purpose animals because of their ability to produce satisfactory carcasses as well as a good milk flow, include the Shorthorn, Red Polled, and Devon. The qualities of these are discussed in *Farmers' Bulletin 612*, "Breeds of Beef Cattle."

REGISTRATION

A purebred dairy animal is one whose sire and dam are eligible to be recorded by name and number in a register of the breed, commonly called the herdbook. An animal thus qualified may itself be recorded in the same herd register, provided the sire and dam are registered, and provided it also qualifies with regard to color. Additional rules and requirements for registration are laid down by the various breed organizations. Copies of these rules may be obtained by writing to the association concerned, as listed on page 32 of this bulletin.

In addition to the herd register, there is for each breed another register in which are entered the names of purebred cows that have completed records meeting specified requirements of milk and butterfat production under definite regulations. Bulls that have a certain number of tested daughters are also recorded in this register. This record of tested cows and proved bulls is called by various names—Advanced Registry for the Ayrshires and Dutch Belted, Register of Production for the Brown Swiss, Advanced Register for the Guernseys and Holsteins, and Register of Merit for the Jerseys.

The requirements for admission to this special register of production and the rules under which the records are made vary somewhat with different breeds. Detailed information on this point may be obtained from the breed associations concerned.

WHICH BREED TO SELECT

Sometimes too much emphasis is given to the question which breed to choose, and too little to the matter of getting good individuals—that is, those that are well bred and high producers. There are three points, however, that should be considered in deciding which breed to select. These are: (1) The breed that predominates in the locality where the new herd is to be located, (2) personal preference, and (3) market requirements for the product.

THE BREED THAT PREDOMINATES

A dairyman just starting with purebreds may feel that since all his neighbors have one breed of cattle, he should get another breed so as to have a monopoly in the business of selling breeding stock. There is no question about the monopoly, but there would probably be no business to monopolize. It is difficult for an isolated small breeder to dispose of his surplus stock to advantage, while if there are many breeders with the same breed buyers are attracted to the locality because of the better chance to get the desired animals from one or more of the several breeders.

There are other advantages to a dairyman in having the same breed as his neighbor, such as the possibility of exchanging bulls, and of owning good purebred bulls cooperatively. These advantages are

obtained by those having grade herds as well as by those with pure-breeds. Then there is also the opportunity for taking advantage of special breed sales of surplus stock, and lastly, the advantage of bringing the community together in other endeavors which usually result where there is but one breed.

PERSONAL PREFERENCE

In a district where no breed is established, or in sections where all the different breeds are about equally represented, the prospective breeder must be guided largely by his personal preference. A person usually takes a liking to one breed, for reasons not easily explainable. Naturally he would take more interest in caring for animals of that breed than for those of a breed that he does not like so well.

Personal preference, however, must not overshadow the matter of quality of individual animals. If high-producing individuals of the breed not so well liked are available at reasonable cost, and individuals of the same quality, of the breed well liked, are not available except at a much higher cost, it may be wiser to select the former, for usually a dairyman soon begins to like a breed with which he is doing well.

MARKET REQUIREMENTS FOR PRODUCT

Market requirements for the product should not be overemphasized in selecting the breed. For a time a dairyman may sell his product in a market where low-testing milk has the advantage, while later the conditions may be changed, and a high-testing milk will sell to better advantage. Obviously, a breeder can not shift from one breed to another to meet the fluctuations in market demands.

When selling to a city milk plant, however, the price paid for the extra fat over the basic test, or deducted from the standard price when the milk is below basic test, may well be considered in selecting the breed. The point here is that sometimes in some whole-milk markets the differential may favor high-testing milk, and at other times or in other markets it may favor low-testing milk.

In summing up the matter of which breed to select, this point should be kept in mind—there are good cows and poor cows in all breeds, and, other things being equal, the breeder or dairyman who gets good individuals to begin with will have a good chance for success, no matter what breed he selects.

THE SCORE CARD

Each breed association has a scale of points, or score card, for bulls and cows of that breed. The card gives definite values for the various characteristics of conformation, and emphasizes points requiring special attention from breeders. The purpose of the score card is to teach beginners the art of judging, and also to encourage the formation of what is considered by breeders, through their associations, as the ideal type. It tends to make the breed uniform in appearance. The scale of points for a cow is given in this bulletin with the description of each breed.

In order to make the score cards more useful, a diagram is given in Figure 1, which names and locates the various parts referred to on the score cards.

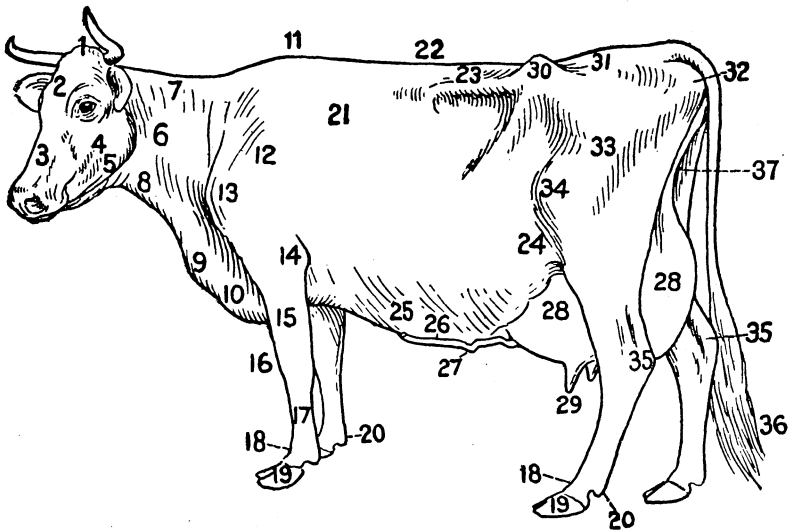


FIG. 1.—Diagram of cow showing parts

- | | | |
|------------------------|---------------------------------|------------------------------------|
| 1. Poll. | 15. Arm or forearm. | 28. Udder. |
| 2. Forehead. | 16. Knee. | 29. Teats. |
| 3. Bridge of nose. | 17. Shank. | 30. Hook, or hook bone. |
| 4. Cheek. | 18. Ankle. | 31. Pelvic arch. |
| 5. Jaw. | 19. Hoof. | 32. Pin bone, thurl, or rump bone. |
| 6. Neck. | 20. Fetlock. | 33. Thigh. |
| 7. Crest of neck. | 21. Crop. | 34. Stifle. |
| 8. Throat. | 22. Chine. | 35. Hoek. |
| 9. Dewlap. | 23. Loin. | 36. Switch or brush of tail. |
| 10. Brisket. | 24. Flank. | 37. Escutcheon. |
| 11. Withers. | 25. Milk well. | |
| 12. Shoulder. | 26. Milk vein, or mammary vein. | |
| 13. Point of shoulder. | 27. Navel. | |

AYRSHIRE

ORIGIN AND HISTORY

The Ayrshire breed originated in southwestern Scotland, in the county of Ayr, in the latter part of the eighteenth century. Doubtless cattle from several neighboring countries were used in the formation of the breed, though there is no record of direct foreign importations to the county of Ayr at that time. While this foreign blood probably had a good effect on the ultimate value of the breed, the substantial and efficient development of the breed seems to have come about mostly through subsequent judicious selection and mating.

IMPORTATION AND DISTRIBUTION

The first importations into the United States occurred in 1822. Since then Ayrshires have been imported almost every year, either from Scotland or Canada. As indicated by Tables 1 and 2, there are about 30,000 registered Ayrshires in the United States, and about 400,000 grades carrying more or less Ayrshire blood. These cattle are found scattered through 38 of the 48 States of the Union, though by far the largest numbers are to be found in the Northeastern States.

GENERAL CHARACTERISTICS

The Ayrshire has a well-built, stocky body, not heavily covered with flesh, but giving the appearance of great vigor and vitality. The calves weigh from 60 to 80 pounds at birth. The weight of mature bulls varies from 1,500 to 2,000 pounds, with an average of about 1,650 pounds, while mature cows range in weight from 850 to 1,250 pounds, and average about 1,050 pounds.

The color varies from almost pure white to nearly all cherry red or brown, with any combination of these colors. Usually the tail is white. The horns are large, and turn gracefully outward, then forward and back, giving a distinctive appearance to the head.

Ayrshire cows are noted for their symmetrical udders, which extend well forward and back, with no tendency to be pendent. The quarters are generally even, the teats medium in size and well placed.

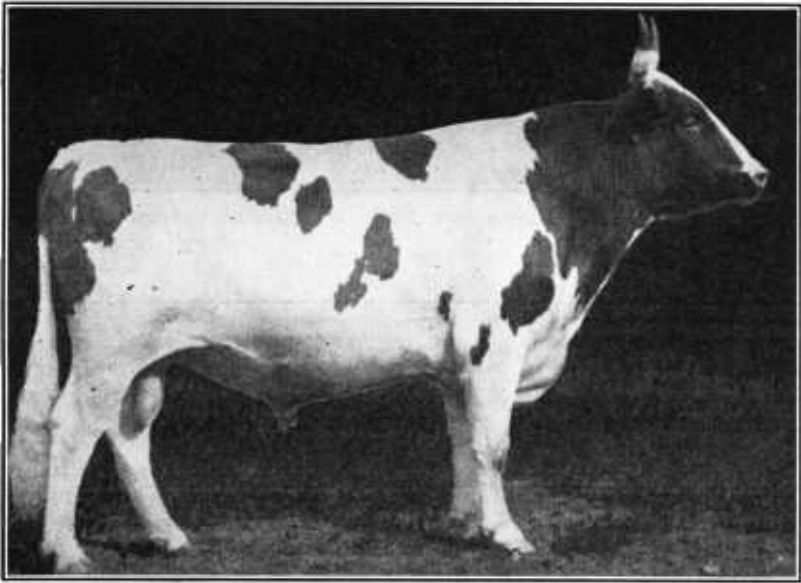


FIG. 2.—Ayrshire bull, Hobsland Lucky Star 29186. Grand champion, National Dairy Show, 1923
10196°—25†—2

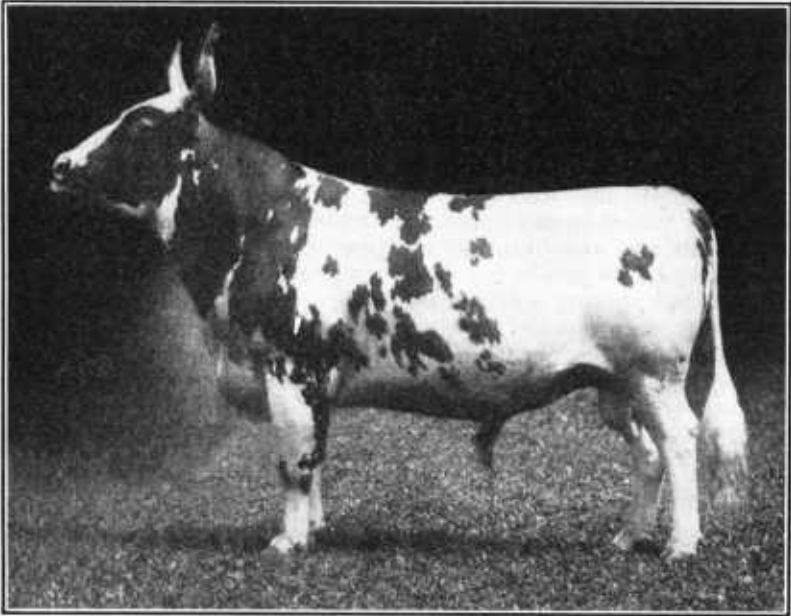


FIG. 3.—Ayrshire bull, Beuchan Peter Pan 12971. Fifty-six of his daughters are in the advanced registry

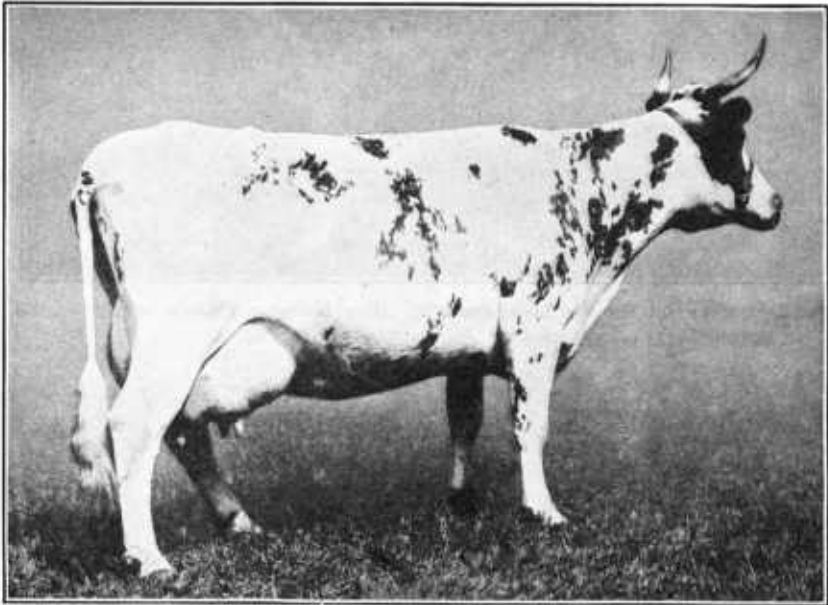


FIG. 4.—Ayrshire cow, Lily of Willownoor 22269. Champion butterfat producer of the breed

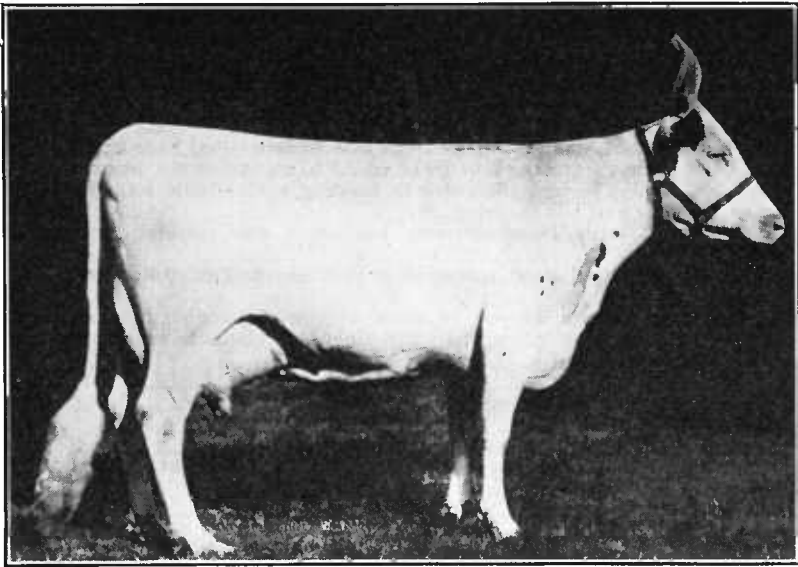


FIG. 5.—Ayrshire cow, Garclaugh May Mischief 27944. Champion milk producer of the breed

Scale of points for Ayrshire cow

Head.....	10
Forehead, broad and clearly defined.....	1
Horns, wide set on and inclining upward.....	1
Face, of medium length, slightly dished; clean cut, showing veins.....	2
Muzzle, broad and strong without coarseness, nostrils large.....	1
Jaws, wide at the base and strong.....	1
Eyes, full and bright with placid expression.....	3
Ears, of medium size and fine, carried alert.....	1
Neck, fine throughout, throat clean, neatly joined to head and shoulders, of good length, moderately thin, nearly free from loose skin, elegant in bearing.....	3
Fore quarters.....	10
Shoulders, light, good distance through from point to point but sharp at withers, smoothly blending into body.....	2
Chest, low, deep and full between back and forelegs.....	6
Brisket, light.....	1
Legs and feet, legs straight and short, well apart, shanks fine and smooth, joints firm, feet of medium size, round, solid and deep.....	1
Body.....	13
Back, short and straight, chine lean, sharp and open jointed.....	4
Loin, broad, strong, and level.....	2
Ribs, long, broad, wide apart, and well sprung.....	3
Abdomen, capacious, deep, firmly held up with strong muscular development.....	3
Flank, thin and arching.....	1
Hind quarters.....	11
Rump, wide, level, long from hooks to pin bones, a reasonable pelvic arch allowed.....	3
Hooks, wide apart and not projecting above back nor unduly overlaid with fat.....	2
Pin bones, high, wide apart.....	1
Thighs, thin, long and wide apart.....	2
Tail, fine, long, and set on level with back.....	1
Legs and feet, legs strong, short, straight, when viewed from behind and set well apart; shanks fine and smooth, joints firm, feet medium size, round, solid, and deep.....	2

Scale of points for Ayrshire cow—Continued

Udder, long, wide, deep but not pendulous nor fleshy; firmly attached to the body, extending well up behind and far forward; quarters even; sole nearly level and not indented between teats, udder veins well developed and plainly visible.....	22
Teats, evenly placed, distance apart from side to side equal to half the breadth of udder, from back to front equal to one-third the length; length 2½ to 3½ inches, thickness in keeping with length, hanging perpendicularly and not tapering.....	8
Mammary veins, large, long, tortuous, branching, and entering large orifices.....	5
Escutcheon, distinctly defined, spreading over thighs, and extending well upward.....	2
Color, red of any shade, brown, or these with white; mahogany and white, or white, each color distinctly defined. (Brindle markings allowed but not desired.).....	2
Covering.....	6
Skin, medium thickness, mellow, and elastic.....	3
Hair, soft and fine.....	2
Secretions, oily, of rich brown or yellow color.....	1
Style, active, vigorous, showing strong character, temperament inclined to nervousness but still docile.....	4
Weight, at maturity not less than 1,000 pounds.....	4
Total	100

PRODUCTION

Ayrshire milk contains a percentage of butterfat that is about the average of all the dairy breeds. The 5,790 cows and heifers that completed official records up to January 1, 1924, produced an average of 10,190 pounds of milk per cow, containing 404.36 pounds of butterfat, or 3.97 per cent butterfat.

The 10 highest producers of butterfat and milk among the Ayrshires are listed below:

Ten highest Ayrshire yearly butterfat and milk production records in the United States

BUTTERFAT PRODUCTION			MILK PRODUCTION		
Cow	Milk	Butterfat	Cow	Milk	Butterfat
	<i>Pounds</i>	<i>Pounds</i>		<i>Pounds</i>	<i>Pounds</i>
Lily of Willowmoor 22269.....	22, 596	955. 56	Garclaugh May Mischief 27944.....	25, 329	894. 91
Auchenbrain Brown Kate 4th 27943.....	23, 022	917. 60	Auchenbrain Brown Kate 4th 27943.....	23, 022	917. 60
Garclaugh May Mischief 27944.....	25, 329	894. 91	Lily of Willowmoor 22269.....	22, 596	955. 56
Auchenbrain Yellow Kate 3d 36910.....	21, 123	888. 33	Garclaugh Spottie 27950.....	22, 589	816. 25
Agawam Bess Howie 43781.....	19, 026	876. 13	Nancy Whitehall 47810.....	22, 075	858. 77
Harperland Spicy Lass 40652.....	20, 592	866. 21	Jean Armour 3d 32219.....	21, 938	859. 65
Jean Armour 3d 32219.....	21, 938	859. 65	Bloomer's Queen 39119.....	21, 820	856. 41
Nancy Whitehall 47810.....	22, 075	858. 77	Auchenbrain Yellow Kate 3d 36910.....	21, 123	888. 33
Bloomer's Queen 39119.....	21, 820	856. 41	Voca 5th of Avon 40267.....	21, 123	741. 91
August Lassie 29581.....	19, 582	831. 50	Orchard Home Betty.....	21, 115	785. 58

BULLS

The 10 Ayrshire sires having the largest number of daughters with official yearly records, up to January 1, 1924, are listed below.

Ten Ayrshire sires having the largest number of Advanced-Registry daughters

Sire	Number of daughters	Sire	Number of daughters
Beuchan Peter Pan 12971.....	56	White Cloud of Hickory Island 10377.....	32
Finlayston 8882.....	55	Morton Mains Queechy 11537.....	27
Baron's Best Bargaenoch 12858.....	43	Netherton Statesman 11643.....	27
Earl's Choice of Springfield 8289.....	43	Kate's Good Gift 15426.....	27
Nox'emall 7312.....	35	Rena's Champion 11816.....	26

BROWN SWISS

ORIGIN AND HISTORY

The original home of the Brown Swiss breed is in Switzerland, where it has been developed during many centuries. It is probably one of the oldest breeds in existence, and it is thought that no outside blood has been introduced since records began.

IMPORTATION AND DISTRIBUTION

The first importation of Brown Swiss into the United States was made in Massachusetts in 1869 and another in 1882. A number of importations have been made since, but only in small numbers. After 1906 there were only a few importations because of regulations due to the prevalence of the foot-and-mouth disease in Europe. As shown in Tables 1 and 2, there are in the United States about 8,000 registered animals, and about 162,000 grades carrying more or less Brown-Swiss blood. These are to be found scattered in 25 States, the largest numbers being in Wisconsin, Illinois, New York, Minnesota, Michigan, Iowa, Pennsylvania, and Ohio. Of late years the breed has made notable increase in popularity.

GENERAL CHARACTERISTICS

The large frame of the Brown Swiss cattle indicates that they have been developed for service as draft animals as well as for milk. They are substantial in appearance, well proportioned, with the body well covered with flesh. The calves weigh from 65 to 90 pounds at birth. The heifers are slow in maturing. When full grown the cows weigh from 1,100 to 1,500 pounds, averaging about 1,250 pounds; and the bulls range in weight from 1,500 to 2,200 pounds, averaging about 1,750 pounds.

The color of the Brown Swiss varies from dark to light brown, and at some seasons of the year approaches gray. There is usually a light stripe of gray along the back. White splashes near the udder are found on some animals, but white splashes on the sides of the body or on the back are objectionable. The hair between the horns is usually a lighter shade than the body. The nose, switch, tongue, and horn tips are always black, and there is usually a light or mealy ring around the muzzle.

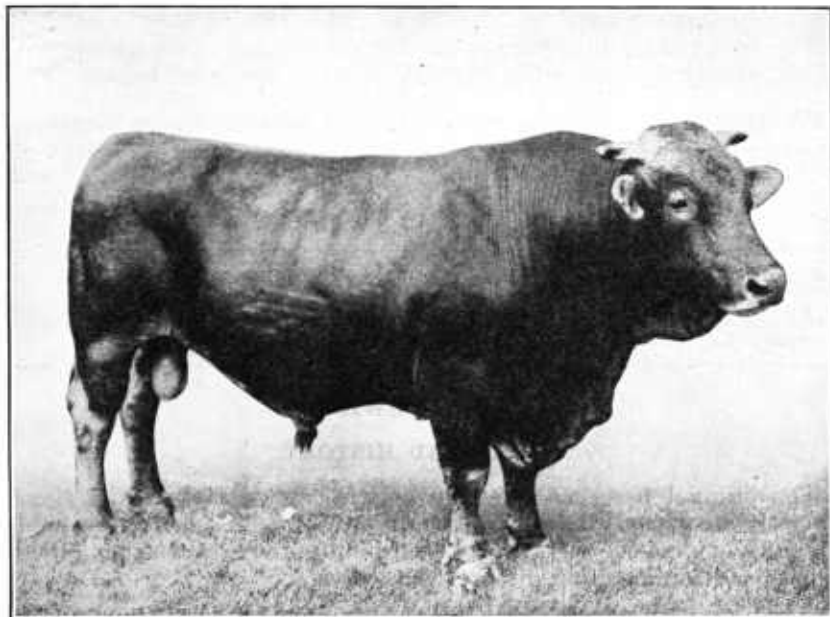


FIG. 6.—Brown Swiss bull, Imp. Junker 2365

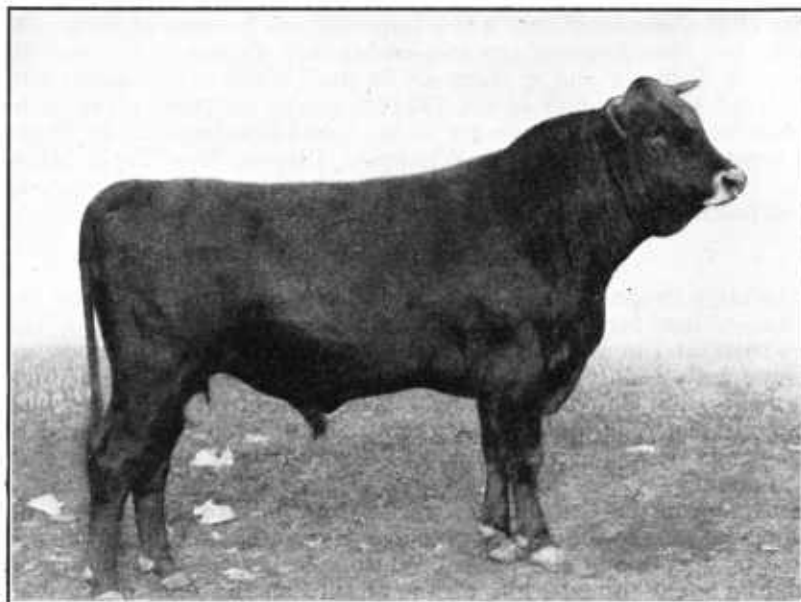


FIG. 7.—Brown Swiss bull, Jubilee Medor 8984. Grand champion, National Dairy Show, 1923

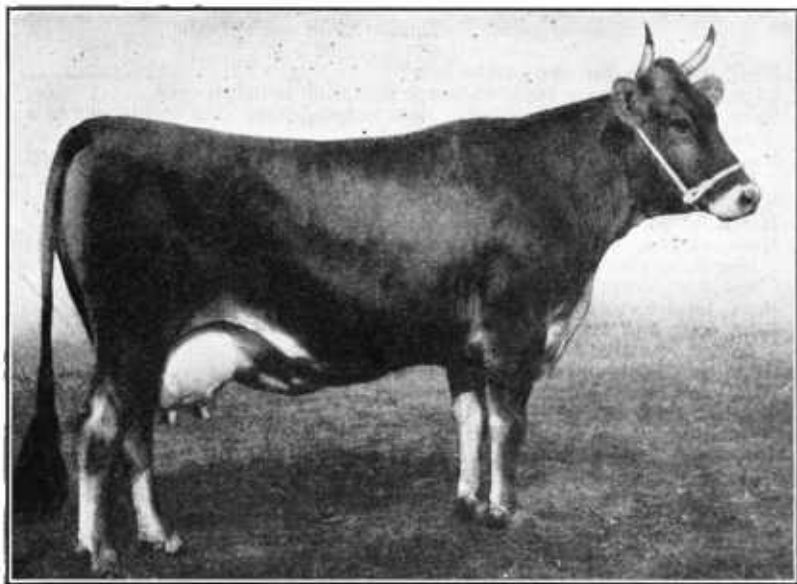


FIG. 8.—Brown Swiss cow, Hawthorn Dairy Maid 6753. One of the high producers of the breed

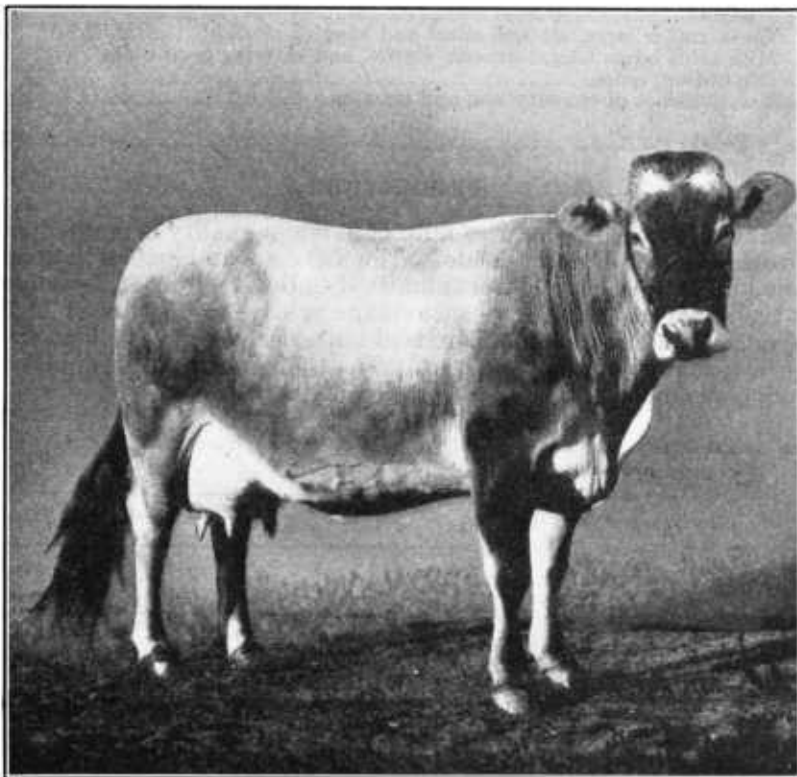


FIG. 9.—Brown Swiss cow, Believe 4245. World's champion of her breed in production of milk and butterfat

Scale of points for Brown Swiss cow or heifer

1. Head, medium size and rather long.....	2
2. Face, dished, narrow between horns and wide between eyes.....	2
3. Ears, large, fringed inside with light-colored hair, skin inside of ear a deep orange color.....	2
4. Nose, black, large, and square, with mouth surrounded by mealy colored band, tongue black.....	2
5. Eyes, moderately large, full, and bright.....	2
6. Horns, short, regularly set with black tips.....	2
7. Neck, straight, throat clean, neatly joined to head, shoulders of good length, moderately thin at the withers.....	4
8. Chest, low, deep, and full between and back of forelegs.....	6
9. Back, level to setting of tail and broad across the loin.....	6
10. Ribs, long and broad, wide apart and well sprung, with thin, arching flanks.....	3
11. Abdomen, large and deep.....	5
12. Hips wide apart, rump long and broad.....	4
13. Thighs, wide, quarters not thin.....	4
14. Legs, short and straight, with good hoofs.....	2
15. Tail, slender, well set on, with good switch.....	2
16. Hide of medium thickness, mellow and elastic.....	3
17. Color—shades from dark to light brown, at some seasons of the year gray; white splashes near udder not objectionable, light stripe along back. White splashes on body or sides objectionable. Hair between horns usually lighter shade than body.....	4
18. Fore udder, wide, deep, well rounded but not pendulous nor fleshy, extending far forward on the abdomen.....	12
19. Rear udder, wide, deep, but not pendulous nor fleshy, extending well up behind.....	12
20. Teats, rather large, set well apart and hanging straight.....	8
21. Milk veins large, long, tortuous, elastic, and entering good wells.....	6
22. Disposition, quiet.....	2
23. Size, evidence of constitution, and stamina.....	5
Total.....	100

PRODUCTION

The Brown Swiss produces milk of average quality compared with the other breeds of dairy cattle. The 390 cows and heifers that completed yearly records and were admitted to the Register of Production up to January 1, 1924, have an average yearly production of 11,773 pounds of milk and 471.63 pounds of butterfat per cow, with an average butterfat test of 4.01 per cent. The 10 highest butterfat and milk producers among the Brown Swiss are listed below.

Ten highest Brown Swiss yearly butterfat and milk production records in the United States

BUTTERFAT PRODUCTION			MILK PRODUCTION		
Cow	Milk	Butterfat	Cow	Milk	Butterfat
	<i>Pounds</i>	<i>Pounds</i>		<i>Pounds</i>	<i>Pounds</i>
Believe 4245.....	25,848	1,002.62	Believe 4245.....	25,848	1,002.62
Hawthorn Dairy Maid 6753.....	22,623	927.23	Hawthorn Dairy Maid 6753.....	22,623	927.23
Alice Lee 2d 8777.....	22,385	914.38	Alice Lee 2d 8777.....	22,385	914.38
Mary Dysart 6791.....	16,861	804.05	College Bravura 2d 2577.....	19,461	798.16
Pretty Jane 8873.....	18,042	801.42	Swiss Valley Girl 10th 7887.....	18,835	675.58
College Bravura 2d 2577.....	19,461	798.16	Ethel B. 3842.....	18,816	779.97
Ethel B. 3842.....	18,816	779.97	Mary of City View 7282.....	18,580	659.72
Hollyhock of Kinnelon 6707.....	17,140	766.98	Trilba M. 2d 7501.....	18,388	656.98
Brownie of Walhalla 7612.....	16,136	760.65	Justina of Laurel Locks 10845.....	18,331	639.18
Helen Tremont 9815.....	18,199	758.72	Rhoda 6207.....	18,251	633.75

BULLS

The 10 Brown Swiss sires having the largest number of daughters with official yearly records, up to December 1, 1923, are listed below.

Ten Brown Swiss sires having the largest number of daughters in Register of Production

Sire	Number of daughters	Sire	Number of daughters
Reuben 2927	23	Casper C. 1999	7
Junker 2365	10	Ben Hanson 2373	7
Collier 2075	10	McAvoy 2068	6
College Master 2386	9	Foxhollow Kalistex 3725	5
Tom Phylis 1769	7	Lectum 4770	5

DUTCH BELTED

ORIGIN AND HISTORY

The Dutch Belted breed originated in Holland about two centuries ago. The breed gets its name both from the original home and from the distinctive color marking. This breed has probably been developed from the same cattle as the Holstein-Friesian. The early records show that the Dutch Belted were bred by the nobility of Holland, and while the unusual color marking was perhaps the chief basis of selection, the qualities of milk production and dairy refinement were not lost sight of.

IMPORTATION AND DISTRIBUTION

The first importation of Dutch Belted cattle into the United States was made probably in 1838. The first importation of importance, however, was made in 1840 by P. T. Barnum for show purposes. These cattle later were placed on a farm, and this seems to be the beginning of the Dutch Belted cattle in America. A number were imported from that time on until 1885, and some in 1906 and 1907, since when no importations have been made on account of the prevalence of foot-and-mouth disease in Europe. As shown in Table 1, there are about 6,000 purebred Dutch Belted cattle in the United States, and about 150,000 grades.

GENERAL CHARACTERISTICS

Dutch Belted cattle have the general dairy conformation, which includes fineness of bone and freedom from beefiness. The aim of the breeders of these cattle is to breed animals that have no white other than that of the standard belt around the body. This belt begins back of the shoulder and extends to the front of the hips. The width of the belt on each animal tends to be uniform around the body. The remainder of the animal is coal black. White above the hocks on the hind legs or above the ankles on forefeet, or white spots in the forehead, disqualify for registration.

Calves at birth range in weight from 60 to 90 pounds. Well-developed mature cows weigh from 1,000 to 1,500 pounds, averaging about 1,200 pounds; and bulls from 1,500 to 2,000 pounds, averaging about 1,700 pounds.

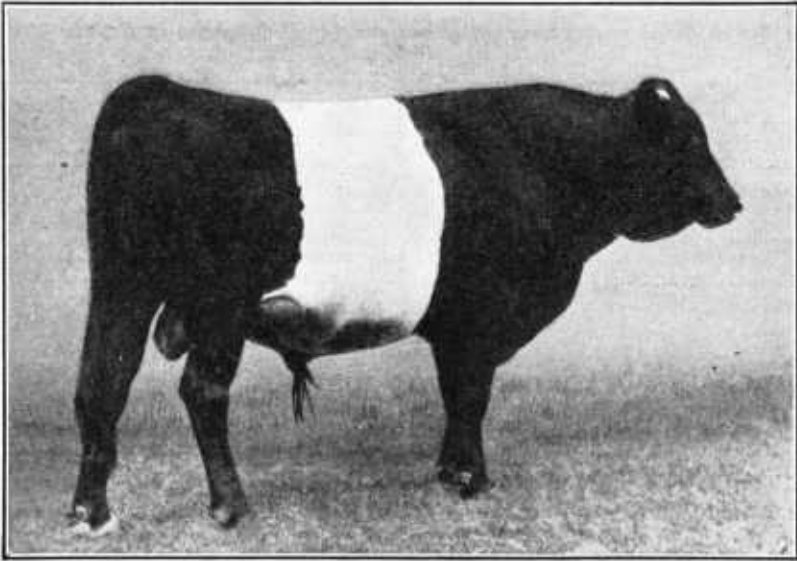


FIG. 10.—Dutch Belted bull, Keith 934. An advanced-register sire

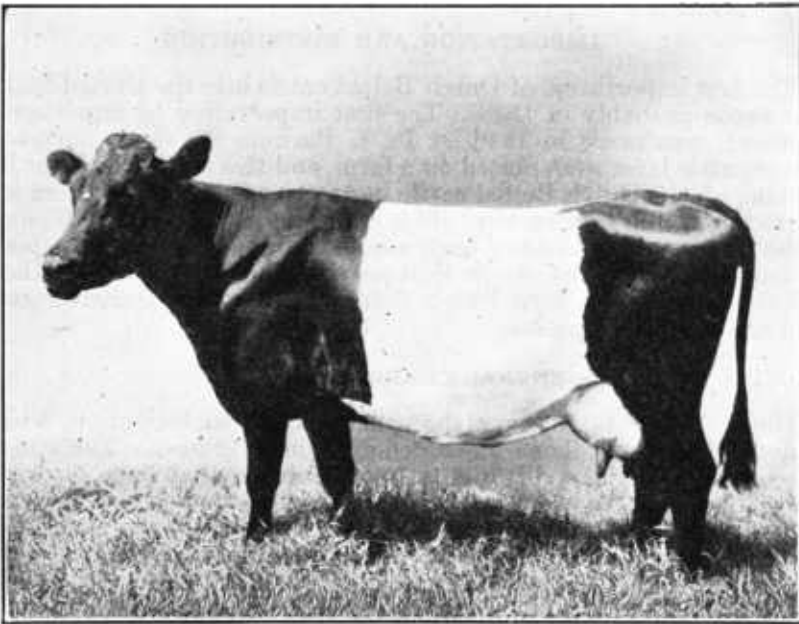


FIG. 11.—Dutch Belted cow, Gem of Columbia 2038. Leading milk and butterfat producer of the breed

Scale of points for 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.....	8
2. Head, comparatively long and somewhat dishing; broad between the eyes. Poll, prominent; muzzle, fine; dark tongue.....	6
3. Eyes, black, full and mild. Horns long compared with their diameter..	4
4. Neck, fine and moderately thin and should harmonize in symmetry with the head and shoulders.....	6
5. Shoulders fine at the top, becoming deep and broad as they extend backward and downward, with a low chest.....	4
6. Barrel large and deep with well-developed abdomen; ribs well rounded and free from fat.....	10
7. Hips broad, and chine level, with full loin.....	10
8. Rump high, long, and broad.....	6
9. Hind quarters long and deep, rear line incurving; tail long, slim, tapering to a full switch.....	8
10. Legs short, clean, standing well apart.....	3
11. Udder large, well-developed front and rear; teats of convenient size and apart; mammary veins large, long, and crooked, entering large orifices.....	20
12. Escutcheon.....	2
13. Hair fine and soft; skin of moderate thickness of a rich, dark, or yellow color.....	3
14. Quiet disposition and free from excessive fat.....	4
15. General condition and apparent constitution.....	6
Perfection.....	100

PRODUCTION

By referring to Table 3 it will be seen that the Dutch Belted cow ranks between the Holstein and the Ayrshire in the percentage of butterfat contained in her milk. The Dutch Belted cows and heifers that finished yearly official records up to January 1, 1924, show an average production of 9,771 pounds of milk and 362.34 pounds of butterfat, with an average test of 3.71 per cent.

The 10 highest producers of butterfat and milk among Dutch Belted cows are listed below.

Ten highest Dutch Belted yearly butterfat and milk production records in the United States

BUTTERFAT PRODUCTION			MILK PRODUCTION		
Cow	Milk	Butterfat	Cow	Milk	Butterfat
	<i>Pounds</i>	<i>Pounds</i>		<i>Pounds</i>	<i>Pounds</i>
Gem of Columbia 2038.....	17, 125	625. 00	Gem of Columbia 2038.....	17, 125	625. 00
Glenbeulah Beauty 2172.....	13, 296	531. 19	Ferndell 1961.....	13, 478	501. 09
Ferndell 1961.....	13, 478	501. 09	Glenbeulah Beauty 2172.....	13, 296	531. 19
Peapack Anna 1487.....	13, 159	484. 31	Peapack Anna 1487.....	13, 159	484. 31
Peapack Dutchess 1390.....	13, 065	447. 64	Peapack Dutchess 1390.....	13, 065	447. 64
Fritzi 1832.....	11, 353	435. 79	Eunice 1597.....	11, 479	397. 24
Alpha of the Dell 2293.....	9, 019	412. 04	Fritzi 1832.....	11, 353	435. 79
Lady Bell 2809.....	10, 880	410. 40	Lady Bell 2809.....	10, 880	410. 40
Gem of Florida's Glory 2520.....	10, 310	408. 00	Gem of Florida's Glory 2520.....	10, 310	408. 00
Eunice 1597.....	11, 479	397. 24	Rancho Queen's Fancy 2460.....	10, 192	392. 71

BULLS

The Dutch Belted sires having the largest number of daughters with official yearly records, up to January 1, 1924, are listed below.

Dutch Belted sires having two or more daughters with Advanced-Register official yearly records

Bruce W. 729. Keith 934.	Columbia King 1015. Glenbeulah Duke 1092.	Sutton's Gay Lad 494. Monarch of Lakeview 1219.	Defendant 1185. Samoset 1134.
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GUERNSEY

ORIGIN AND HISTORY

The Guernsey breed originated in the Channel Islands, near the north coast of France. It is thought that this breed has been developed from a cross between the large red and brindle cattle of Normandy and the small red cattle of Brittany, in France. The exact date of origin is unknown, but it was probably in the latter part of the seventeenth century or before.

All the cattle in the Channel Islands were at one time known as Alderneys. After laws had been enacted forbidding the importation of cattle from the Continent or between the islands of Guernsey and Jersey, two distinct breeds came to be recognized. The one on the islands of Alderney, Sark, and Guernsey became known as the Guernsey breed and the one on Jersey Island as the Jersey breed.

IMPORTATION AND DISTRIBUTION

The first cattle from the Channel Islands brought to America were called Alderneys. They were imported in the latter part of the eighteenth century and may have been either Guernsey or Jersey cattle. The first animals recorded in the herdbook of the American Guernsey Cattle Club were brought over in 1830. A few more were imported in the next two decades, but not until about 1870 were extensive importations made. Since that time importations have been made nearly every year.

According to Tables 1 and 2, there are about 80,000 purebred Guernsey cattle in the United States, and about 1,900,000 grades. They are to be found in every State of the Union, but by far the largest numbers are found in the North Atlantic and North Central States.

GENERAL CHARACTERISTICS

In size the Guernseys are about equal to the Ayrshires and slightly smaller than the Brown Swiss. The calves weigh from 55 to 85 pounds at birth, and reach maturity early. When mature the cows weigh from 850 to 1,300 pounds, averaging about 1,050; and the bulls from 1,400 to 2,000 pounds, averaging about 1,600 pounds.

The color of the Guernseys is fawn and white, with fawn predominating. A light cherry red with white is also found. Sometimes white may be entirely lacking except on the legs. The switch is usually white and the tongue light in color. The horns are of moderate size and amber in color. The skin is yellow.

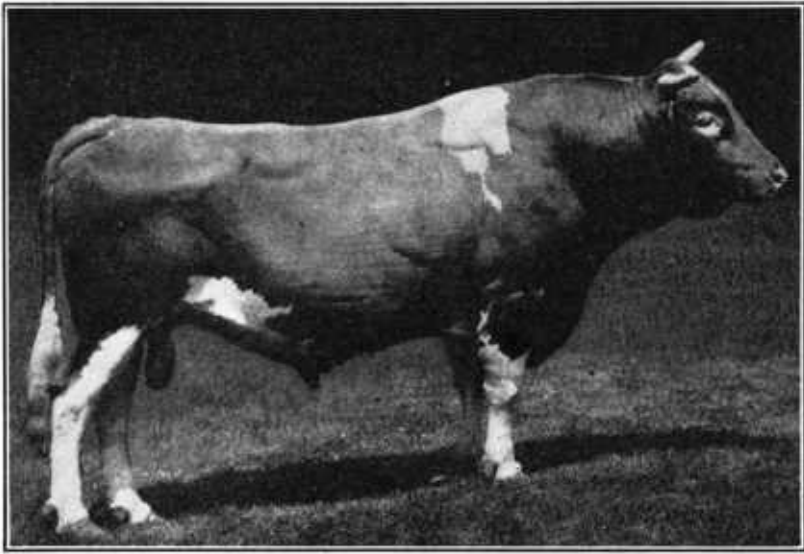


FIG. 12.—Guernsey bull, Yeoman's King of the May 17053. He has 84 daughters in the advanced registry

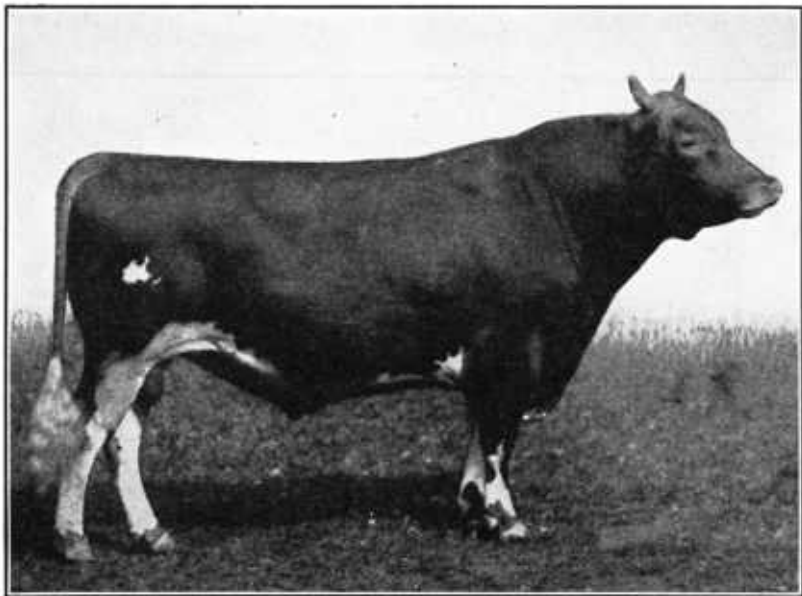


FIG. 13.—Guernsey bull, Deanie's Marose of Appletree Point 62742. Grand champion, National Dairy Show, 1923

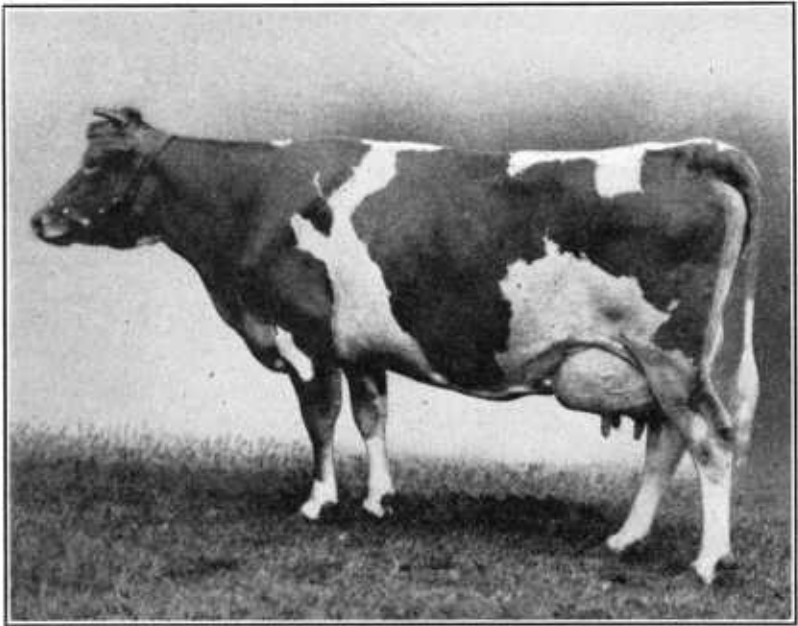


FIG. 14.—Guernsey cow, Countess Prue 43785. Champion butterfat producer of the breed

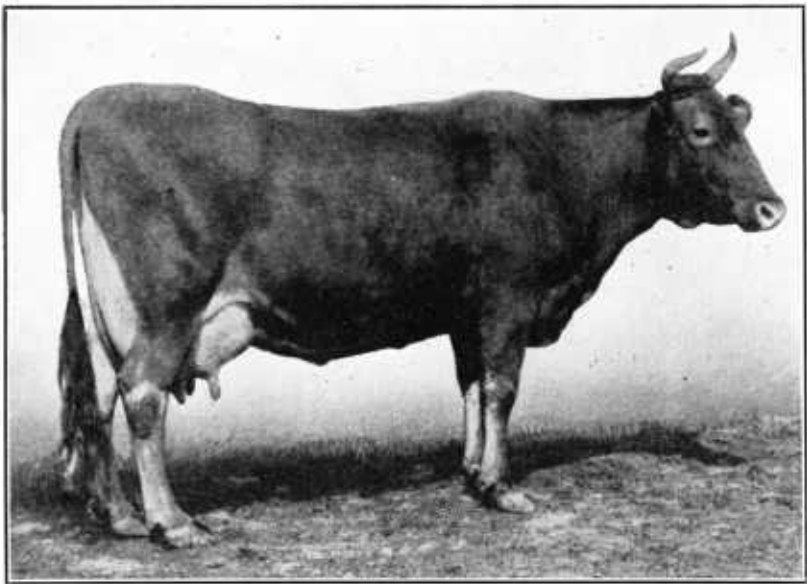


FIG. 15.—Guernsey cow, Murne Cowan 19597. Champion milk producer of the breed

Scale of points for Guernsey cow

Head, clean cut, lean face, wide mouth and muzzle, with open nostrils, full, bright eye, with gentle expression. Forehead long, broad between the eyes, and dishing.....	6
Horns, small at base, medium length, not too spreading.....	1
Neck, long and thin; clean throat.....	2
Withers, chine rising above shoulder blades that are moderately thick and not coarse.....	3
Back, straight from withers to hips.....	8
Hips, wide apart, not too prominent.....	2
Rump, long, continuing with level of the back, also level between hip bones and pin bones.....	5
Thurls, wide apart and high.....	2
Chest, wide and deep at heart, with least depression possible back of the shoulders.....	4
Body, deep and long, with well-sprung ribs which are wide apart. Broad loin. Thin, arching flank.....	10
Thighs, thin, incurving seen from side, and wide apart from rear.....	2
Legs, comparatively short, clean, wide apart, and nearly straight when viewed from behind, squarely set under body.....	2
Hide, loose and pliable, and not thick, with oily feeling.....	3
Tail, neat and firm setting on, long, good switch.....	1
Udder:	
Veins prominent.....	2
Attachment to body and wide.....	2
Extending well forward.....	5
Level and well up behind.....	4
Teats of good, even size, well apart, and squarely placed.....	5
Milk veins, long, crooked, branching and prominent, with large, deep wells. Secretions indicating color of product, indicated by the depth of yellow, inclining toward orange of the pigment secretion in the skin, on the body generally, and especially discernible in the ear, at the end of bone of tail, around the eye, on the udder and teats, and at the base of horns. Hoofs and horns amber colored.....	20
Color markings, a shade of fawn, with white markings.....	2
Size, mature cows, about 1,100 pounds in milking condition.....	5
Total.....	100

PRODUCTION

Guernsey milk has a high per cent of butterfat and a yellow color. The 19,631 cows and heifers that completed official records up to January 1, 1924, produced an average per cow of 9,359 pounds of milk and 468.3 pounds of butterfat, the average fat test being 5 per cent.

The 10 highest butterfat and milk producers among the Guernseys are listed below.

Ten highest Guernsey yearly butterfat and milk production records in the United States

BUTTERFAT PRODUCTION			MILK PRODUCTION		
	Milk	Butterfat		Milk	Butterfat
	<i>Pounds</i>	<i>Pounds</i>		<i>Pounds</i>	<i>Pounds</i>
Countess Prue 43785.....	18, 627	1, 103. 28	Murine Cowan 19597.....	24, 008	1, 098. 18
Murine Cowan 19597.....	24, 008	1, 098. 18	Nella Jay 4th 38233.....	20, 710	1, 019. 25
May Rilma 22761.....	19, 673	1, 073. 41	Jean Du Luth Coronet 52816.....	20, 004	952. 27
Nella Jay 4th 38233.....	20, 710	1, 019. 25	Langwater Hope 27946.....	19, 882	1, 003. 17
Langwater Nancy 27943.....	18, 783	1, 011. 66	Yeksa's Tops of Gold's Fannie 22362.....	19, 795	981. 53
Dairy Maid Queen of Spring Hill 74067.....	18, 181	1, 011. 18	May Rilma 22761.....	19, 673	1, 073. 41
Langwater Hope 27946.....	19, 882	1, 003. 17	Belladia 31909.....	19, 632	934. 05
Yeksa's Tops of Gold's Fannie 22362.....	19, 795	981. 53	Pearl's Dot 57445.....	19, 602	965. 80
My Fancy of Falcon's Flight 42699.....	18, 215	979. 11	Cinderella Josephine 34500.....	19, 460	909. 05
Pearl's Dot 57445.....	19, 602	965. 80	Ada of Tamworth II 43614.....	18, 857	707. 17

BULLS

The 10 Guernsey sires having the largest number of daughters with official yearly records, up to January 1, 1924, are listed below.

Ten Guernsey sires having the largest number of Advanced-Register daughters

Sire	Number of daughters	Sire	Number of daughters
Governor of the Chene (R. G. A. S. 1297 P. S.)	112	Clara's Sequel 29414 (Imp.)	52
Yeoman's King of the May 17053	84	Ne Plus Ultra 15265	46
Masher's Sequel 11462 (Imp.)	70	Cora's Governor of Chilmark 9871 (Imp.)	46
Langwater Demonstrator 16451	66	Beda's May King 11893	41
Galaxy's Sequel 16904 (Imp.)	53	Justinee's Sequel of the Preel (R. G. A. S. 2119 P. S.)	39

HOLSTEIN-FRIESIAN

ORIGIN AND HISTORY

The cattle from which our present Holstein-Friesian breed has descended were developed in northern Holland, especially in the Province of Friesland, and in the neighboring Provinces of northern Germany. The time of their origin as a recognized distinct breed is unknown; but it is probable that they have been selected for their dairy qualities for about 2,000 years.

Before 1885 there were two associations furthering the interests of this breed in the United States. One maintained a Holstein herdbook, and the other a Dutch-Friesian herdbook. In 1885 the two associations were combined into the Holstein-Friesian Association of America, and from that time on only one herd register has been maintained. This is known as the Holstein-Friesian herdbook. While the official name of the breed is Holstein-Friesian, the single word Holstein is more common in ordinary use.

IMPORTATION AND DISTRIBUTION

The first importations of Holsteins into the United States were made in 1795, and afterwards a few were brought in from time to time up to 1879, following which heavy importations were made each year until 1887. Thereafter only a few were imported up to 1905, and since then, because of the prevalence of foot-and-mouth disease in Europe, very few have been imported.

According to Tables 1 and 2 there are about 528,000 purebred Holsteins in the United States, and about 10,500,000 grades. Holstein cattle are found throughout all the 48 States of the Union, though by far the largest numbers are in New York, Wisconsin, Pennsylvania, Ohio, Michigan, and Illinois, in the order named. These six States contain more than 60 per cent of the purebred Holstein cattle in the United States.

GENERAL CHARACTERISTICS

The Holsteins are the largest of the dairy breeds. They have large frames, not heavily covered with flesh. The calves weigh from 70 to 105 pounds at birth. The mature bulls weigh from 1,600 to

2,200, and average about 1,900 pounds; and the mature cows weigh from 1,100 to 1,750, and average about 1,250 pounds. The color is black and white, with the colors sharply defined rather than blended. They may be nearly all white or black, but no solid-color animal can be registered.

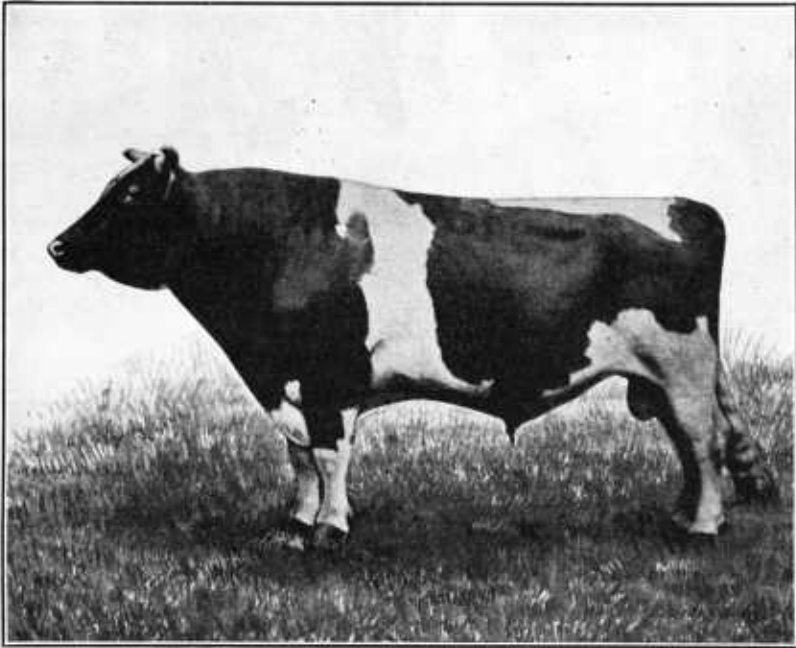


FIG. 16.—Holstein bull, Sir Pietertje Ormsby Mercedes 44931. He has 56 yearly-record daughters in the advanced register

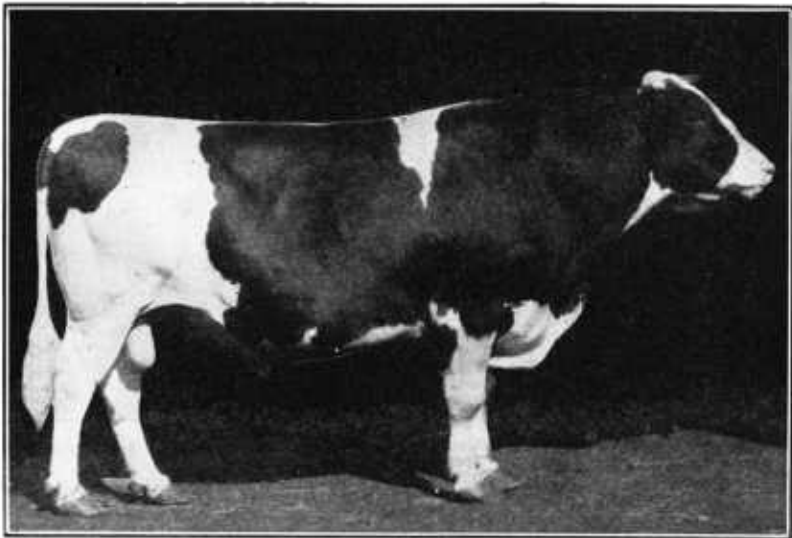


FIG. 17.—Holstein bull, McKinley Pietertje Beets 154888. Grand champion, National Dairy Show, 1923

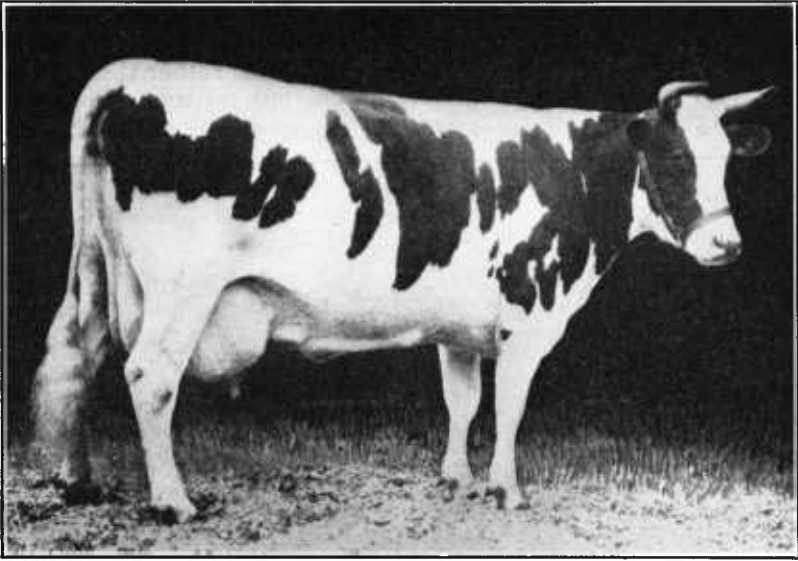


FIG. 18.—Holstein cow, Segis Pietertje Prospect 221846. Has highest yearly milk record in the United States

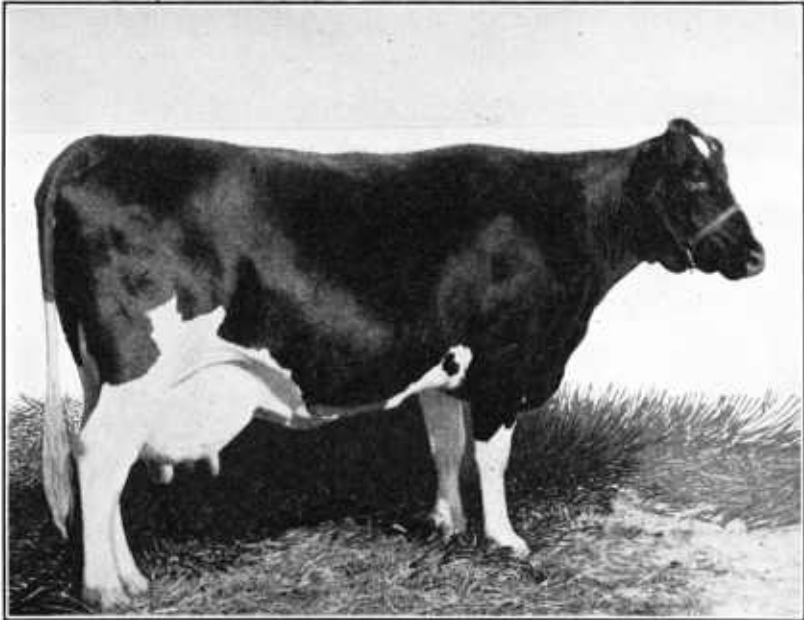


FIG. 19.—Holstein cow, May Walker Ollie Homestead 300043. Has highest yearly butterfat record in the United States

Scale of points for Holstein-Friesian cow

Forehead, broad between the eyes; dishing-----	2
Face, of medium length; clean cut; feminine; the bridge of the nose straight-----	1
Muzzle, broad, with strong lips; nostrils, large and open; jaws strong-----	3
Ears, of medium size; of fine texture; well carried-----	1
Eyes, large; full; mild; bright-----	2
Horns, small; tapering finely toward the tips; set moderately narrow at base; inclining forward; well curved inward-----	1
Neck, long; fine and clean at junction with the head; evenly and smoothly joined to shoulder-----	3
Shoulders, slightly lower than the hips; smooth and rounding over tops; moderately broad and full at sides-----	3
Crops, full; level with the shoulders-----	5
Chine, straight; strong; broadly developed, with open vertebræ-----	4
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-----	2
Thurls, high; broad through-----	2
Tail head and tail, strong at base without coarseness; the setting well back; tail long, tapering finely to a full switch-----	2
Chest, deep; wide; well filled and smooth in the brisket; broad between the forearms; full in the foreflanks-----	6
Barrel, long; deep; well rounded; strongly and trimly held up-----	9
Flanks, deep; full-----	2
Thighs, wide; deep; straight behind; wide and moderately full at the outsides; twist well cut out and filled with development of udder; escutcheon well defined-----	2
Mammary veins, large, tortuous, entering large orifices or double extension; with additional developments, such as branches and connections entering numerous orifices-----	8
Udder, capacious; flexible; quarters even and of uniform texture, filling the space in the rear below the twist, extending well forward; broad and well attached-----	14
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 healthy in appearance; fine and soft; hide of medium thickness; mellow and loose-----	8
Total-----	100

PRODUCTION

The Holsteins produce a larger quantity of milk, with a lower butterfat content, than any other dairy breed. The milk is not so highly colored as that from the Guernseys and Jerseys.

The 16,094 official records of Holstein cows and heifers that were completed up to January 1, 1924, show an average yearly production of 15,508 pounds of milk and 526 pounds of butterfat, the average test being 3.39 per cent.

The 10 highest butterfat and milk producers among the Holsteins are listed below.

Ten highest Holstein yearly butterfat and milk production records in the United States

BUTTERFAT PRODUCTION			MILK PRODUCTION		
Cow	Milk	Butterfat	Cow	Milk	Butterfat
	<i>Pounds</i>	<i>Pounds</i>		<i>Pounds</i>	<i>Pounds</i>
May Walker Ollie Homestead 300043.....	31, 611	1, 218. 59	Segis Pietertje Prospect 221846.....	37, 381	1, 158. 95
Hollywood Lolith Palmyra Abbekerk 400491.....	31, 859	1, 206. 79	Kolrain Marion Finderne 317396.....	35, 339	1, 022. 96
Duchess Skylark Ormsby 124514.....	27, 762	1, 205. 09	Kolrain Finderne Bess 291570.....	35, 085	1, 117. 16
Finderne Pride Johanna Rue 121083.....	28, 404	1, 176. 47	Queen Carlotta De Kol 311674.....	34, 430	1, 012. 42
Segis Pietertje Prospect 221846.....	37, 381	1, 158. 95	Adirondac Wietske Dairy Maid 204072.....	34, 402	1, 136. 15
Grahamholm Colantha Pauline Segis 405465.....	34, 292	1, 141. 40	Grahamholm Colantha Pauline Segis 405465.....	34, 292	1, 141. 40
Adirondac Wietske Dairy Maid 204072.....	34, 402	1, 136. 15	Princess Aaggie Polkadot De Kol 372024.....	34, 070	1, 119. 83
Neelje Mercedes De Kol Homeland 274016.....	30, 566	1, 134. 48	Tilly Alcartra 123459.....	33, 425	1, 058. 42
Poplar Jewess De Kol 198322.....	33, 368	1, 119. 95	Poplar Jewess De Kol 198322.....	33, 368	1, 119. 95
Princess Aaggie Polkadot De Kol 372024.....	34, 070	1, 119. 83	Zarilda Clothilde 3d De Kol 133840.....	33, 154	955. 34

BULLS

The 10 Holstein-Friesian sires having the largest number of daughters with yearly records, up to January 1, 1924, are listed below.

Ten Holstein sires with the largest number of yearly-record daughters

Sire	Number of daughters	Sire	Number of daughters
Sir Pietertje Ormsby Mercedes 44931.....	56	Sir Inka Prilly Segis 80914.....	39
King Pontiac Champion 53418.....	50	Dutchland Colantha Sir Inka 50999.....	39
Woodcrest Tehee 74219.....	50	Sir Pietertje Ormsby Mercedes 37th 110160.....	37
Sir Johanna Fayne 42147.....	48	King Segis Pontiac Count 93909.....	34
King of the Pontiacs 39037.....	42	Colantha Sir Walker Korndyke 95460.....	29

JERSEY

ORIGIN AND HISTORY

The Jersey breed originated in the Island of Jersey, one of the group of Channel Islands, between England and France. It came from the same stock as the Guernsey breed, and at one time these two breeds were together known as Alderney. In 1789 a law was passed prohibiting the importation of cattle into Jersey Island except for immediate slaughter. Shortly afterwards the cattle on that island became known by the name of Jersey instead of Alderney. No outside blood has been introduced since that time.

IMPORTATION AND DISTRIBUTION

The first importation of Jerseys into the United States was made in 1850. A few more were brought over about 20 years later, and from 1870 to 1890 there were numerous importations. Since 1890 many Jerseys have been imported every year.

The Jerseys are more evenly distributed in the United States than any other breed. There were about 232,000 purebred and about 9,300,000 grade Jerseys in this country in 1920, well scattered throughout all the 48 States.

GENERAL CHARACTERISTICS

The Jersey is the smallest of the breeds discussed in this bulletin. The calves weigh from 40 to 75 pounds at birth. The heifers develop rapidly and mature sufficiently to drop the first calf at 24 months of age. The mature cows weigh from 700 to 1,200 pounds, averaging about 900 pounds, and the bulls weigh from 1,200 to 1,800, averaging about 1,500 pounds.

The color of Jerseys is usually some shade of fawn or cream color, though different shades of mouse color, gray, and brown are common, and some individuals approach black. They may be solid color of any of these shades, or spotted with white. The muzzles and tongues are usually black or lead colored, but light-colored tongues are not uncommon; and around the muzzle is a white or mealy ring.

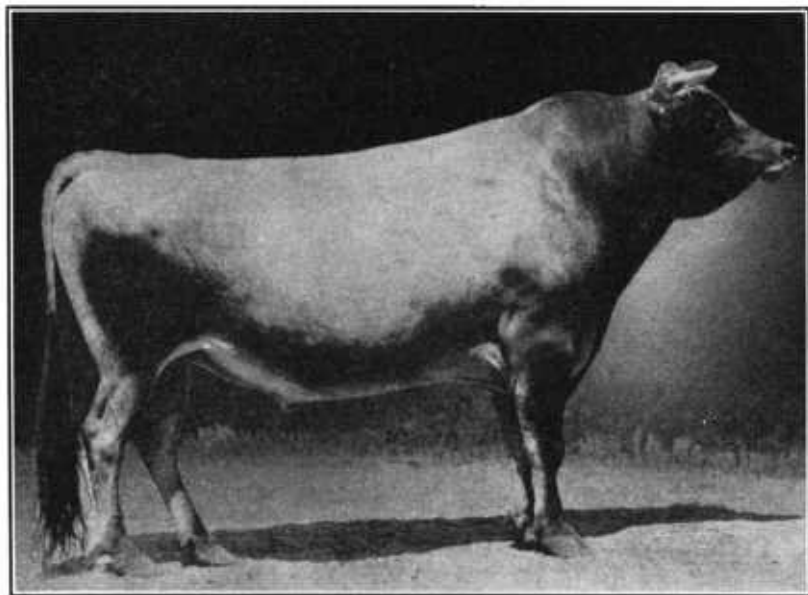


FIG. 20.—Jersey bull, Pogis 99th of Hood Farm 94502. He has 102 daughters in the register of merit

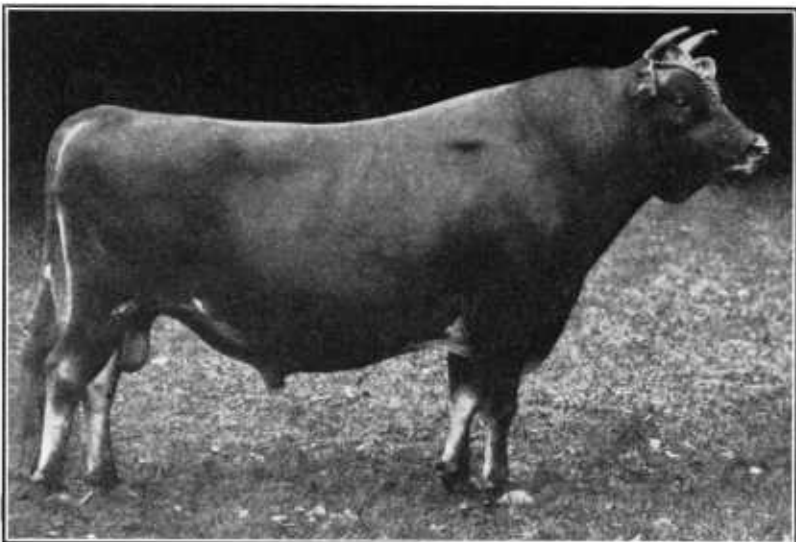


FIG. 21.—Jersey bull, Fern's Wexford Noble 172066 Grand champion, National Dairy Show, 1923

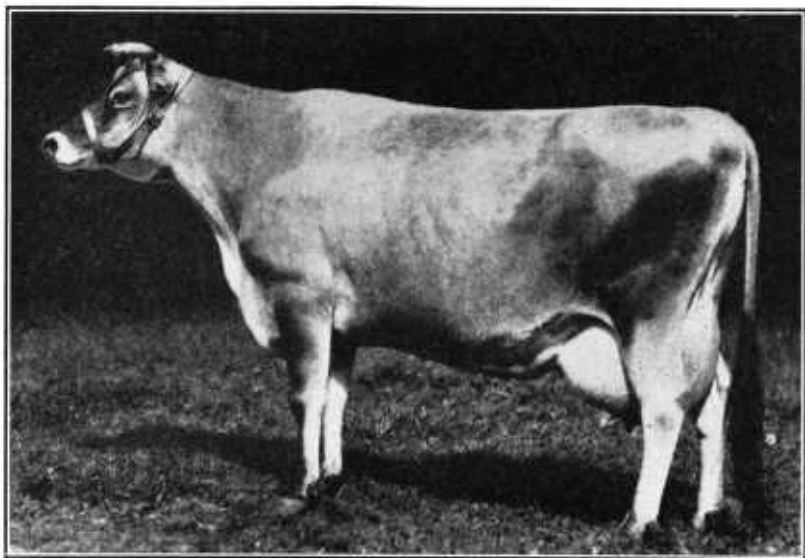


FIG. 22.—Jersey cow, Fauvie's Star 313018. Champion milk producer of the breed

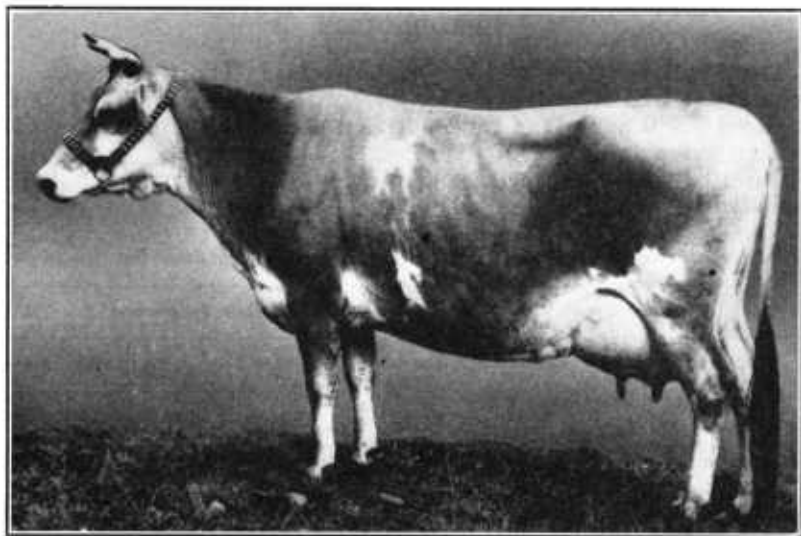


FIG. 23.—Jersey cow, Darling's Jolly Lassie 435948. Champion butterfat producer of the breed

Scale of points for Jersey cow

DAIRY TEMPERAMENT AND CONSTITUTION

Head, 7:		
A. Medium size, lean; face dished; broad between eyes; horns medium size, incurving.....		3
B. Eyes full and placid; ears medium size, fine, carried alert; muzzle broad, with wide-open nostrils and muscular lips; jaw strong....		4
Neck, 4:		
Thin, rather long, with clean throat, neatly joined to head and shoulders..		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..		5
B. Ribs amply sprung and wide apart, giving wedge shape, with deep, large abdomen, firmly held up, with strong, muscular development..		10
C. Back straight and strong, with prominent spinal processes; lions broad and strong.....		5
D. Rump long to tail setting, and level from hip bones to rump bones..		6
E. Hip bones high and wide apart.....		3
F. Thighs flat and wide apart, giving ample room for udder.....		3
G. Legs proportionate to size and of fine quality, well apart, with good feet, and not to weave or cross in walking.....		2
H. Hide loose and mellow.....		2
I. Tail thin, long, with good switch, not coarse at setting on.....		1

MAMMARY DEVELOPMENT

Udder, 26:		
A. Large size, flexible, and not fleshy.....		6
B. Broad, level or spherical, not deeply cut between teats.....		4
C. Fore udder full and well rounded, running well forward of front teats..		10
D. Rear udder well rounded, and well out and up behind.....		6
Teats, 8:		
Of good 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, 4:		
Mature cows, 800 to 1,000 pounds.....		4
General appearance, 10:		
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

PRODUCTION

Jersey milk is yellow and rich in butterfat. The 18,250 cows and heifers that had Register-of-Merit records up to January 1, 1924, averaged 8,580 pounds of milk and 460 pounds of butterfat a year, with an average test of 5.36 per cent.

The 10 highest butterfat and milk producers among the Jerseys are listed below.

Ten highest Jersey yearly butterfat and milk production records in the United States

BUTTERFAT PRODUCTION			MILK PRODUCTION		
Cow	Milk	Butterfat	Cow	Milk	Butterfat
	<i>Pounds</i>	<i>Pounds</i>		<i>Pounds</i>	<i>Pounds</i>
Darling's Jolly Lassie 435948.....	16, 425	1, 141. 28	Fauvic's Star 313018.....	20, 616	1, 005. 90
Groff's Constance 367292.....	17, 942	1, 130. 09	Passport 219742.....	19, 695	839. 26
Prince's Emma of H. S. F. 359390.....	18, 437	1, 109. 99	Lad's Likeness 338246.....	19, 223	937. 50
Lad's Iota 350672.....	18, 632	1, 048. 07	Eminent's Jimp's Owl 297471.....	19, 099	768. 44
Plain Mary 268206.....	15, 256	1, 040. 08	Raleigh's Sybil 372752.....	18, 847	863. 53
Vive La France 319616.....	15, 272	1, 039. 29	Eminent's Bess 209719.....	18, 783	962. 80
Lady's Silken Glow 313311.....	14, 939	1, 038. 70	Lass 40th of Hood Farm 223642.....	18, 661	854. 90
St. Mawes Lad's Lady 451568.....	15, 229	1, 032. 97	Lad's Iota 350672.....	18, 632	1, 048. 07
Brown Lady's Little Jewel 378786.....	18, 318	1, 019. 73	Helma of Ashwood 352476.....	18, 525	903. 56
Fauvic's Star 313018.....	20, 616	1, 005. 90	Prince's Emma of H. S. F. 359390.....	18, 437	1, 109. 99

BULLS

The 10 Jersey sires having the largest number of daughters with official yearly records, up to January 1, 1924, are listed below.

Ten Jersey sires with largest number of daughters in Register of Merit

Sire	Number of daughters	Sire	Number of daughters
Pogis 99th of Hood Farm 94502.....	102	The Imported Jap 75265.....	49
Royal Majesty of St. Cloud 89541.....	78	Rinda Lad of S. B. 89518.....	46
Hood Farm Torono 60326.....	74	Golden Glow's Chief 61460.....	40
Sophie 19th's Tormentor 113302.....	67	Fauvic's Prince 107961.....	29
Rossaire's Olga Lad 87498.....	51	Holger 109744.....	26

BREED ASSOCIATIONS

The various breed associations and clubs maintain offices and forces whose duty it is (1) To keep the herdbooks for their respective breeds; (2) to keep a record of the animals that have qualified for the additional registration because of meritorious performance; and (3) to further the interest of the breed in other ways. The official names of these organizations and their addresses are as follows:

- American Guernsey Cattle Club, Peterboro, N. H.
- American Jersey Cattle Club, 324 West Twenty-third Street, New York City.
- Ayrshire Breeders' Association, Brandon, Vt.
- Brown Swiss Cattle Breeders' Association, Beloit, Wis.
- Dutch Belted Cattle Association of America, Rockville, Conn.
- Holstein-Friesian Association of America, Brattleboro, Vt.