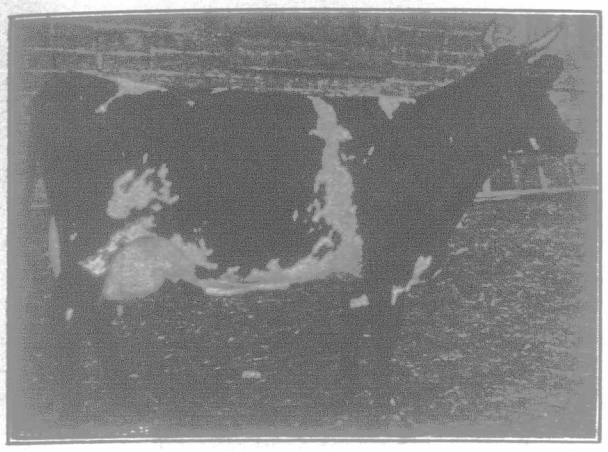
qualities is the ability of the breed as a whole to produce high-testing milk of average quality in large quantities, and to transmit these qualities to the offspring. In 1805 individuals of the breed were credited with yielding as high as 30 quarts of milk daily. This would be equal to between 70 and 75 pounds. These records have since become quite common.



Milkmaid of Orkney.

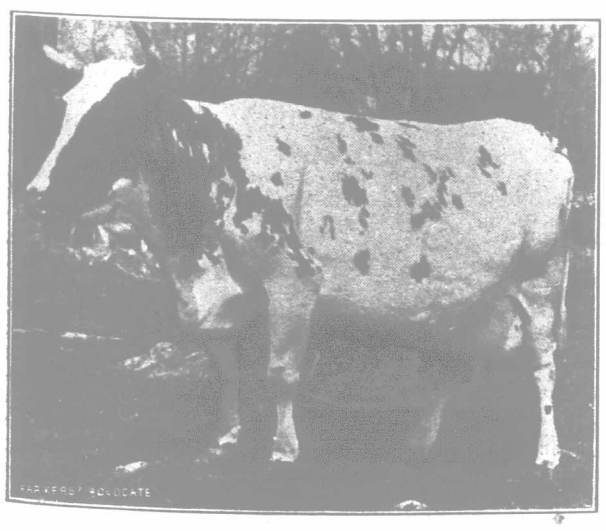
Champion of the three-year-old class in R. O. P. test. Owned by H. McPherson, Orkney, Ont

The environment and climatic conditions surrounding the Ayrshires in their native land doubtless had much to do with instilling a hardiness into the breed that has not left it during the years that have intervened, and to-day its representatives are found upholding the good name of the breed in every land. They are good grazers with a rugged constitution, and thrive under not the most ideal conditions.

The characteristic color is a combination of red and white, with each color distinctly defined. Some breeders prefer more white than red and vice versa, but that is a matter of individual preference. There is a remarkable uniformity in size and conformation of mature animals. Mature bulls weigh around 1,500 pounds, and mature cows average between 1,000 and 1,100 pounds. This does not constitute a particularly large cow, but, as a rule, the ribs are well sprung and long, thus giving the body great capacity. On account of the blood used in building up the breed Ayrshires rank among the first of the dairy breeds for beef production. It appears natural for them to carry a considerable amount of flesh, even when in heavy milk. An animal of this breed can soon be fed to make a very salable carcass which kills out somewhat better than representatives of the other dairy breeds. However, they do not, as a rule, make as large daily gains as have been reported with other breeds. Ayrshires cross fairly well with beef breeds. Bulls, of beef breeds, used on Ayrshire cows produce calves which fatten easily and make good bullocks, while Ayrshire bulls are frequently used on grade cows to improve the milk producing power of the herd. The inclination to keep in good flesh does not detract from the ability to produce milk and butter-fat in large quantities. The cows contain the machinery for turning their feed into milk and fat as well as meat. The udder development presents a high average perfection of form, being attached high behind with the fore udder extending well forward. Pendulent or meaty udders are uncommon. It is true that short teats, which make hand milking difficult, have been a serious fault of Ayrshire cows, but selection and breeding have materially overcome this trouble. The average modern Ayrshire cow has fair-sized teats.

The Ayrshire Breed in Canada.

Early in the 19th century Ayrshires were introduced into this country when Scotch settlers moved to Canada to hew for themselves homes from the primeval forests. The herds gradually increased and an endeavor was made to keep the breed pure. New blood was occasionally imported from the old land to improve the producing qualities. Its many good qualifications soon made it the popular dairy breed, especially in Eastern Ontario and Quebec. As the number of animals gradually increased it became more difficult to preserve the purity of the

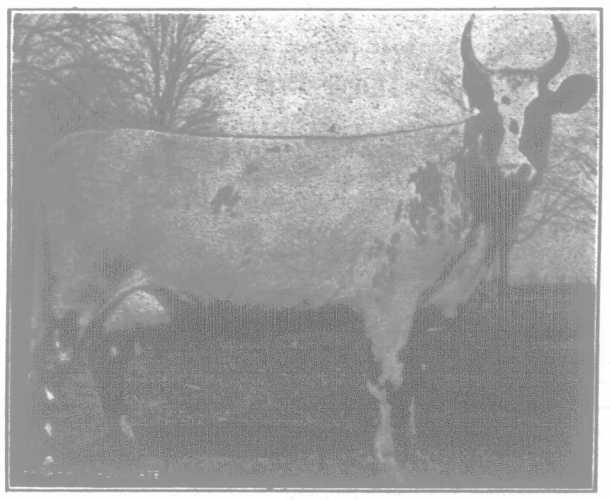


Daisy of Ferndale.

Champion of four-year-old class in R. O. P. test. Owned by W. C. Tully, Athelstan, Que.

breeding and individuality of the respective families of Ayrshires in Canada, owing to lack of a Canadian system of registration. The animals imported were registered in Scottish herd books, but breeders felt it to be to the best interests of the breed in Canada to establish a Canadian herd book. This was commenced by the Ayrshire breeders of Canada in 1872. An effort was made to trace every family recorded to imported stock or to well-known herds of undoubted purity. The first volume of the Ayrshire herd book was issued in 1881, and contained the pedigrees of 1,500 bulls and 1,645 cows. In volume twenty-five of the herd book issued in 1915 the numbers of animals registered run to 48,920.

In numbers there is strength, and the breeders felt that an organization would be of material value in increasing the interest in the breed, consequently the Ayrshire Importers and Breeders' Association of Canada was organized in Montreal in 1870, and the Ontario Ayrshire Record Association in Ontario in 1872. These two associations amalgamated in 1898 and became known as the Canadian Ayrshire Breeders' Association. The membership increased from 207 in 1889 to 1,198 at the close of 1915. During all these years the Canadian Ayrshire Breeders worked together to improve the good qualities of their chosen breed, and to eliminate, if possible, any deficiency. Quietly but nevertheless effectively the work of perfecting the breed has gone on until to-day a line-up of Ayrshires drawn from many herds shows a uniformity of conformation, size and color markings second to no other breed. The average Ayrshire cow is a fairly well-balanced animal. While the breeders were engaged perfecting the animal system the producing mechanism of the breed was not neglected. Milk and butter-fat production were ever in the mind of the breeders, although official testing was not generally practiced. In public tests the Ayrshires usually stand well to the front when yield, quality and economy of production are considered. In short tests remarkable records have been made, but it is the yearly test that shows a cow's true worth as a producer.



Briery of Springbank 2nd.

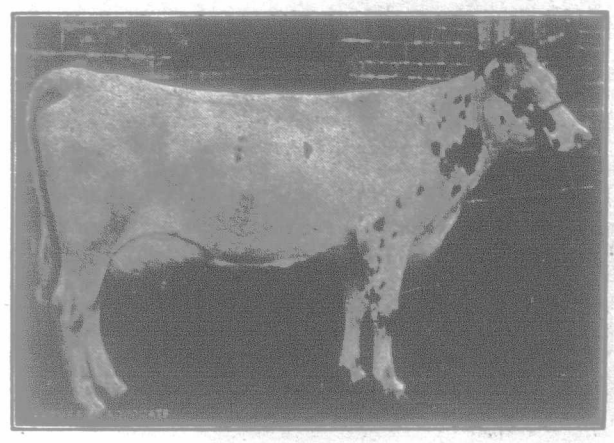
Champion of two-year-old class in R. O. P. test. Owned by A. S. Turner & Sons, Ryckman's Corners, Ont.

Ayrshires in the R. O. P. Tests.

In order for a cow or bull to qualify for registration in the Record of Performance test there are certain rules and regulations which must be complied with. The animals entered in the test must previously be registered in the Canadian Ayrshire Herd Book, and the test is for a period of 365 consecutive days, but no milk from a second freshening within this period shall be considered in a test. The owner of a cow entered in the test is required to weigh each milking and record the weight on special record forms furnished for the purpose. An inspector visits the stable at least 8 times during the year at irregular intervals and stays for two full days. His duties are to weigh each milking and take samples for testing. These samples are used as the basis for computing the record. The inspector compares his weight with the owners' record for two days immediately preceding his visit. In this way there is little opportunity for an unscrupulous breeder to pad the records in order to bring his cow up to a high standing. In order to qualify every cow under test must drop a calf within fifteen months after the beginning of her testing period. This is only fair, as some breeders might delay breeding their cow so that she might have every chance to make a phenomenal record. To be of greatest value a cow must produce a calf each year as well as a large flow of milk. Four classes are made so that heifers will not be competing against mature cows. Heifers from 2 to 3 years are entered in the 2-year-old class; from 3 to 4 years in the 3-year-old class. Cows 4 to 5 years old are considered in the 4-year-old class, and over 5 years in the mature class. In order to qualify for registration in this test all cows must equal or exceed both the following records:

	Lbs. Milk	Lbs. Butter-Fat
Two-year-old class	5500	198
Three-year-old class	6500	234
Four-year-old class	7500	270
Mature class	8500	306

Bulls also qualify for registration after having 4 progeny qualify in the Record of Performance, each from a different dam. This test reveals what a cow can produce in one lactation period under average conditions, and a cow that qualifies enhances her cash value as well as that of her offspring. At first breeders were slow to enter their cows in the test,



Lenore 2nd.

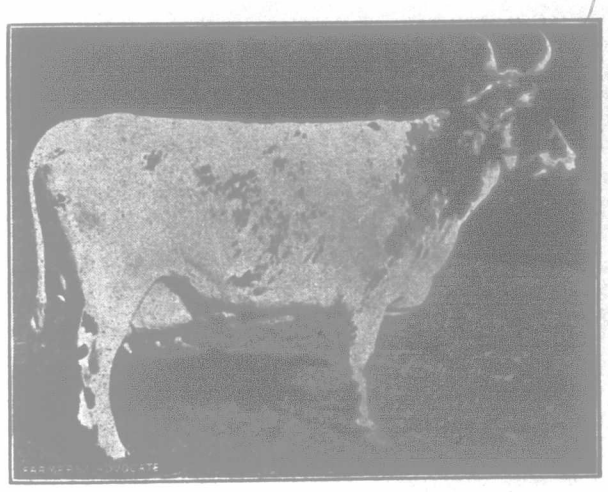
Two-year-old Canadian butter-fat champion in R.O.P. tests. Owned by H. McPherson, Orkney, Ont.

but so soon as they realized the value of knowing their animals by the Babcock test and scales the number of entries advanced rapidly. Many good cows have been drawn to the front that never would have become known had it not been for the Record of Performance. Breeders can ill afford not to enter their cows in this yearly test. Pure-bred dairy stock finds slow sale at private or public sales when their records and that of their ancestors are not definitely known. Animals that have proven their efficiency are in demand to-day. The public realizes that the value of a cow or herd of cows for dairy purposes depends on the net returns they can give year by year at the pail. Ayrshire breeders knowing this have endeavored, through the test, to advertise their breed on its merits as a worker and economical producer. Careful selection of breeding stock has gradually raised the average quantity and quality of milk per cow.

The mature cow, Almeda of Danville, owned by G. A. Langelier, was the first of the Ayrshire breed entered in the R. O. P. test. Her test commenced in October, 1905, and in 365 days she produced 11,337 lbs. milk testing 3.6 per cent., equaling 410 lbs. fat. The following year R. R. Ness was the only breeder to enter a cow. This shows how sceptical breeders were. However, in 1908 there were 66 entries, and from then on the increase has been rapid. In 1915, 598 animals were entered, and in the first 4 months of 1916 there were 290 applications. To March 31, 1916, 743 Ayrshire cows and heifers had qualified, and for the same period 36 bulls have been reported as having four or more progeny registered in the test. Between 750 and 800 Ayrshire cows and heifers are under test at the present time, which gives an idea of the value placed on the official yearly test by Ayrshire breeders.

Statistics reveal the fact that the average production per cow in Canada is around 4,000 lbs. of milk in a year. But records show that 202 mature Ayrshire cows gave a yearly average of 10,277.32 lbs. milk and 412.26 lbs. butter-fat, which, at the present price of milk and butter-fat would bring around $125 per cow as compared with $50 for the average cow. Sixty-six 4-year-olds averaged 8,281.50 lbs milk and 378.86 lbs. butter-fat in one year. In the 3-year-old class 136 heifers averaged 8,340.84 lbs. milk and 344.25 lbs. butter-fat, and 279 2-year-olds averaged 7,501.65 lbs. milk and 309.27 lbs. butter-fat. Many owners of these cows did not know that they had such heavy producers in their herds until they commenced testing.

Milkmaid 7th stands at the head of the mature class. She has a record of 16,696 lbs. milk, with an average test of 4.36 per cent. fat. In the 4-year-old class Daisy of Ferndale is first with 15,534 lbs. milk and 590 lbs. fat as her record. Milkmaid of Orkney heads the 3-year-old class in milk production, having given 14,060 lbs. milk and 534 lbs. fat. Briery of Springbank 2nd is champion of the 2-year-old class, with



Milkmaid 7th.

Champion of mature class in R.O.P. test. Owned by A. McRae & Sons, Charlottetown, P. E. I.