

Ayrshire Cattle.

Extracts from Mr. Wm. Rodden's Address at the Twentieth Anniversary and Annual Meeting in Montreal of the Ayrshire Importers' and Breeders' Association of Canada.

In consequence of his desire to retire from his official duties as President of the Society, he produced for publication in the record much information he had collected concerning the rise and progress of "Improved Ayrshire dairy cattle" and evidence of their superiority; also a concise statement of the origin and business of the Association, with the establishment of Ayrshire Herd Books, their necessity and present position in Scotland, Canada and the United States, with other matters of importance to dairy farmers.

Over a century has passed since England, Ireland and Scotland found it necessary to provide better means of supplying food for the increasing populations, the increased demand for dairy products occupied much attention, cattle were fed for and taught to produce beef for British tables and armies, thus decreasing the supply of dairy goods in England, it became necessary for Scotland and Ireland to improve their dairy cattle, and increase their dairy products for their home consumption, as well as for the English markets. Scotland improved hers by the most judicious crossing and feeding, particularly in the dairying districts of Ayrshire, where care and attention produced a class of cows that became famous for their superior production for the food consumed. That example may safely be followed in Canada, while it will be most profitable in dairy products; the maintenance of a proper proportion of live stock on the farm will preserve the producing power of the soil, and improve the bank account of the farmer. Excessive shipping of young stock for beefing purposes should be guarded against in Eastern Ontario and the Eastern Provinces, where dairying for shipping purposes and for maintenance of fertility of the farm is so necessary. Dairy farmers are particularly warned of the danger to their herds from the use of ill-bred young bulls, or those from families long fed for beefing purposes that do not produce good dairy stock. The study of feeding and breeding for milk requires more attention. Good dairy animals cannot be profitable if kept most of winter days in barn yards, picking up straws scattered on the snow or sloppy dunghills; care and more succulent food is needed to produce good milk. The following evidence found in records extending back for one hundred years shows that Ayrshires are the best suited to Canada's soil and climate, and most profitable:—

Their reputation in Ayrshire was first publicly established by the tests of the poet Burns, when cheese-making in a Dumfries dairy, as evidenced by his letter of November, 1778. He pronounced a Dunlop Ayrshire the best; thence forward they became most popular. Scotch cattle were sent by Sir Wm. Alexander to the Eastern Province about 1625 to 1630, and settlers from Scotland brought Ayrshires for the use of passengers, and subsequently found them superior to any others for use on the voyage and on land.

The Governor, Lord Dalhousie, imported Ayrshires in 1821 to 1823; they gave good satisfaction in his dairy. Some of them were obtained by land owners about Quebec and Montreal. The report of the then Montreal Agricultural Society in 1827 announced their superiority for yield in quality and quantity for the food consumed, and for their adaptation to this climate. The society's first importation was then made and continued up to 1852, when the importation was continued by members of the Quebec and Montreal societies, and two Ontario societies, all declaring their excellence. The Governments of two of the Eastern Pro-

vinces imported cattle for the improvement of live stock and dairying.

The counties that obtained them were called upon to report on their respective merits. From the report of twenty county societies I read that "Ayrshires hold the first place in popular estimation; are valued as hardy, healthy, good breeders; best milkers for the food consumed, and the use of Ayrshire bulls has given a superior class of grade dairy cows."

IMPORTED AND CANADA BRED AYRSHIRES IN THE UNITED STATES.

We are much indebted to American breeders of Ayrshires and to professors in their State Experimental Dairy Farms and Agricultural Colleges for valuable practical tests and scientific experiments of milk products. Several of the American herds of Ayrshires were produced from animals imported to and bred in Canada; many are descended from the best to be found in the district of Montreal and Eastern Ontario. Some Americans have reported the tests of six to twenty cows, varying in weight from 1,000 lbs. to over 1,100 lbs. each. "Several of the cows have given in one month 1,025 lbs. to 1,140 lbs. of good milk—from 6,000 to 10,000 pounds per annum. Their cream tests by tubes in cold water varied from 22 to 30 per cent. of cream; quality not tested; quantity of cream does not indicate quality. Generally speaking, their feed in winter was hay, straw and roots, or ensilage, or a little grain and bran. In summer they are pastured; if field feed was short, green feed, or a little ground grain and bran were given to keep up condition." Some forced tests show from 10,000 to 14,000 pounds a year. I found such forced tests to be injurious to the future usefulness of cows, and only gave temporary advantage at sales and exhibitions, but should be avoided.

RESULTS OF AMERICAN PROFESSORS THOROUGH, PRACTICAL AND SCIENTIFIC TESTING.

The officials of experimental stations called upon the Ayrshire Breeders' Association to furnish Ayrshires for the tests. Similar requests were made for Jerseys, Ho'steins and Durhams. The following figures, taken from reports of a professor's tests, of four of each of the four breeds, for the year 1879, "shew the Ayrshires to be the most profitable producers of milk and butter for the food consumed. They shew the lowest cost of keep and the least cost of producing milk and butter:—

	Ayrshires. lbs.	Jerseys. lbs.	Durhams. lbs.	Holsteins. lbs.
Quantity of milk tested	4,579 to 6,658	3,616 to 5,650	4,732 to 7,450	5,171 to 7,361
Cost of keeping	44.41	46.49	48.41	50.12
Cost of 100 lbs. of milk	78	99	81	85.12
Cost of butter per lb.	11.7-10	13.3-10	13.12	18.3-10
The variation in cost in butter	09.9 to 15.5	10. to 16.9	10.6 to 18.8	12.4 to 23.7
Per cent. of butter fat.	4.28	5.12	3.86	3.13

The professor placed a value of 25 cents per hundred pounds on the skim milk in each case, and deducted it from cost of keep. He says:—"As a rule Ayrshires are under-estimated as butter producers. As to economy in the utilization of food, the Ayrshires leave very little to be desired. Their vigorous constitution and good temperament are points of no small importance." He urges breeders "to know the per cent. of fat in the milk of their cows, and abandon the use of scrub bulls."

Other professors report:—"The keeping qualities of Ayrshire milk are good; it stands shipment very well. It has kept bottled on steamers for use all the way to Europe, and is a very good market milk. Its proportionate amount of solids make it most desirable for cheese-making." They report "600 pounds each of cheese made from Ayrshire cows per annum, and more in some cases." Another reports Ayrshire milk "very desirable for drinking, and children as a remedy."

Professor Law gave instances "where children improved by a change to its use." One of their presidents says:—"The Ayrshire is to be the business cow of this continent, to give more good milk than any other breed that is known

here." Space will not admit of more similar testimony from the United States.

WHAT HAS BEEN DONE IN CANADA.

In the last ten years there has been some public practical tests, confined in some cases to the proportion of milk given to size of cow, with others the quantity of milk per cow; in others both the quantity and quality were determined. In the cases referred to, members of our association were the successful competitors at Ottawa, Montreal, Sherbrooke and Quebec cities, with animals bred on their own farms from Montreal importations. Some of these tests were performed scientifically, in which the solids were 13.6 to 15 per cent., and butter fat was 3.80 to 4.50 per cent., some exceeding 5.00 per cent. In the few cases where milk records have been kept, they show yields of from 6,000 to 8,000 lbs. a year; some exceed that on such good feed only as should be given to dairy cows in most cases, without forcing, where actual profit was considered. The standard here for milkmen's herds of ordinary grade is 3.00 per cent. butter fat, and it has been exceeded; where there were Ayrshire grades it exceeded four per cent. I have the certificate to above effect.

In several of the counties of the Province of Quebec and in Eastern Ontario there are large herds bred from the use of pure Ayrshire bulls that give from 4,500 to 6,500 lbs. of milk per annum, of good quality, giving from 250 to over 300 lbs. of butter for the season. Some of those are in counties having Canadian cows with Ayrshire crosses.

THE LATEST TEST IN CANADA

was made at London, Ont., September, 1889, for the very liberal prize offered by the FARMER'S ADVOCATE. It should have been better patronized. The only animals offered for that contest were, "Three Jerseys, from the herd of Mrs. Jones, Brockville, and three Ayrshires from the herds of Mr. Smith and Mr. Thos. Guy, Oshawa, Ont." I have carefully examined the professor's report of the test and all the comments thereon, which brings me to the following conclusions:—The professor has adhered to the stipulated condition and reported accordingly; nevertheless, it is not such a test as reaches the required points of excellence of the two breeds, and it is a failure as far as Mr. Guy's Ayrshires are concerned. The feed they received at the test was not in the same proportion of suitable food for producing milk as that which was given to Mrs. Jones' Jerseys, which was of a more succulent nature and less expensive than that given to Mr. Guy's cows; the food he gave was better calculated to build up the flesh of the body than to fill the pail.

Dairy cows should not receive large proportions of grain and dry hay, and should not be allowed at exhibitions to remain unmilked to inflate the udder for appearance sake; thus be taught to convert food into meat instead of milk, as has been done in the case of the beefing breeds. A few days tests at exhibitions, without sufficient time to recover from the effect of removal from home, cannot produce true indications of the difference in merit, particularly where similar proportions of food are not given to each breed, and where quantity and quality are not together calculated. This I know from over twenty-five years experience in home tests, at much expense, from which business I am retiring.

This report would not be complete without evidence from Great Britain, where Ayrshires have taken the lead and are holding it in their best dairies, as evidenced by the following extracts from reports:—

Members of the British Dairy Farmers' Association met the Scotch dairy farmers at Ayrshire in June, 1889. The meeting was attended by dukes, earls, hon. members of governments, professors, a large number of public men, and the best dairy farmers, who kept from 50 to over 100 cows, and paid \$15 to \$20 an acre annual rent for farms by dairying with Ayrshires. Mr. Dunlop said, "He took 50 Ayrshires to London, England, twenty years ago; they were there now by thousands in the front ranked dairies, and gained a world-wide ascendancy over every other breed. Coming to Scotland warmed his heart amid the classic scenes made famous by their