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EDITORIAL.

Dairy Breeds for Dairy Work.

The trade statistics of Canada show that the export of cheese and butter from this country last year figured up in value, in round numbers, to about \$25,000,000. The dairy industry is by long odds the most important branch of all the agricultural interests of the Dominion. The value of our exports of live cattle for all purposes—beef, breeding, and feeding-is little more than one-third of that of our export of dairy products alone, while our export of bacon, hams and all other meats amounts in value to less than one-half what is received for the cheese and butter we export. Our dairy cows proved the financial salvation of the agricultural interests of the country during the dark years of the business depression of the last decade, making money steadily for their owners, and trade for the Dominion, when nearly all other industries were down in the dumps, and the dairy business has bulked larger than any other agricultural industry in the fat years which have followed the lean ones, the export returns for dairy products last year exceeding those of 1890 by over ten millions of dollars. The average production of milk per cow per annum has been steadily increasing, and it is beyond dispute that the dairy breeds, which have rapidly multiplied in this country in the last ten years, have been very largely instrumental in bringing about this increased production. In no class of pure-bred stock have the breeders shown greater skill, judgment and intelligence in improving the type and practical working capacity of their animals than have the breeders of dairy cattle. They have worked and studied with this purpose, and have succeeded at the same time in improving the conformation and constitution of their stock, and getting nearer to a uniform type.

All indications go to show that the pure-bred dairy herds in Canada are among the healthiest of our live stock, which is saying a good deal, since there is no country in the world where the general healthfulness of live stock is greater than in this Dominion. Canada stands high in regard to the quality of its dairy cattle. Our Ayrshires at the World's Fair at Chicago, in 1893, were a revelation of an ideal class of dairy cattle to the people of the United States, sweeping the prize list clean, and they have greatly improved since that time, as the grand display at our leading exhibitions amply attests, the best of judgment having been employed in breeding them for vigor of constitution and capacity for work as well as for beauty of conformation, while no expense has been spared in importing the best of new blood from the native heath

Many of the best of the great records of butter production by Jersey cows in America have been made by Canadian-bred cows and their offspring and descendants. At the Provincial Dairy Show in 1899, a Jersey cow, in an official test in public, and in strange surroundings, away from her stable companions, in two days' test gave 65.9 lbs. of milk, testing over $6\frac{1}{2}$ per cent. butter-fat, and the same cow has completed a year's work, making over 500 lbs. of butter within the 12 months, which, while grand work, is far below the butter record of the breed, which stands at over 1,000 lbs. in a year. The Holstein-Friesians, in public and official tests in Canada in the last few years, have demonstrated beyond dispute their value as dairy cows in large production of milk and butter, a cow of this breed, at the dairy show at London in 1899, having broken the record of public tests by producing on the show ground, under official supervision, 146.9 lbs. of milk in two days, testing on an average 4.61 per cent.

butter-fat, or at the rate of 29 lbs. 8 ozs. butter in 7

In grade dairy herds, where well-selected bulls of one of the dairy breeds have been persistently employed, remarkable results have been attained in increasing the milking capacity of herds. A striking instance of this is seen in the herd of Mr. Tillson, of Tilsonburg, Ont., whose cows, principally grade Holsteins, have been graded up in milk production by good breeding and feeding combined, until in 1899 his entire dairy of 55 cows averaged 11,472 lbs. of milk, testing 3½ per cent., or equivalent to 475 lbs. per cow, while his best cow, a grade with one Holstein cross, gave 20,134 lbs. milk in 12 months

and 15 days. That there are many good dairy cows in the beef breeds is freely admitted, and they are generally the best breeders and most profitable of the breed, giving the calves a start in the first months of their lives that tells in vigor of constitution and quality of flesh when they grow older, but as a rule beef and milk production do not go together in the best degree of each, and the training of cows of the beef breeds has generally been that of short-milking terms, ending, as a rule, when the calves are eight or nine months, while the milking term of the dairy breeds is generally ten to eleven months, while some are milked from year to year without a break. The dairyman who has a useful herd of grade cows of one of the beef breeds, with good milking character (for the general-purpose cow is no myth), will do well to continue in the same line, selecting the sires he uses from deep-milking families, having due regard to dairy conformation and robust constitution, and the average farmer will be well suited with this class of dairy cattle, since he can raise the male calves as steers on the skim milk, and sell them at a profit as stockers, or, better still, finish them for export at 21/2 years old, when, as a rule, they will realize a good price. But the dairyman suitably located for that business, who has a herd of grade cows of one of the dairy breeds, having used bulls of a dairy breed, will make a mistake if he allows himself to be persuaded, in violation of the recognized principles of breeding, to cross his cattle with bulls of the beef breeds, or of any other breed than the one he has been using, for the result will surely be a mongrel and nondescript class of stock, which cannot be depended upon to produce offspring of any uniform type or character. Having started with the use of bulls of any distinct breed, the true principle that leads to success is to continue to employ sires of the same breed, and to use one's best judgment and vigilance in securing good individual sires, with strong constitution, bred from a sire of same character, and a dam and family of known excellence of performance in the special line of work in hand. Breeders of all the different breeds of stock may do much to raise the standard of the stock of the country by castrating inferior males, or those bred from inferior dams, when young, or letting them go to the butcher as young things, when they have cost but little to raise, and will pay as well as at any other stage. By this means, and the weeding out of the unprofitable cows by feeding them off for the shambles, the general character of our stock may in a few years be immensely improved, to the advantage and profit of all concerned. In this connection, farmers will do well to study the principles of breeding, and by careful observation and experience, and the use of their own best judgment, carve out their own course, instead of lending a too willing ear to interested or irresponsible oracles.

There is no safer line of farm work than dairying for the average farmer and the up-to-date farmer. It requires but little capital, and the work can generally be done within the family. Expensive

buildings or equipment are not necessary to success, as the plainest buildings may at little cost be made comfortable and kept clean. There is always a market, and generally a good market, for dairy products, and a little money from this source comes in regularly every month in the year, to enable the farmer to pay as he goes. The herd is annually increased, at small cost, by raising the heifer calves on skim milk, to take the place of discarded or worn-out cows, while, worked in connection with pork production, the combination is in these days in the nature

Experience in Sugar Beet Culture.

In order to encourage the establishment of beetsugar factories in Canada, the Dominion Government has provided that for the term of one year the extensive and, we understand, costly machinery required in their equipment will be admitted into the country free of duty. In the Province of Ontario, the Local Government has set apart \$75,000 per year for three years, to be paid in bounties: half a cent per pound on the sugar manufactured the first year, a quarter of a cent for the second and third years; four dollars (\$4) per ton to be paid the farmer by the factories the first year for all beets, and for the two subsequent years \$4 and such additional price as would correspond to the proportion of saccharine matter above twelve per cent.

Negotiations are already under way in several Ontario localities looking towards the erection of beet-sugar factories, but whether any of them will begin operations during the present year remains to be seen. All indications, however, seem to point to the inception of the industry in the near future; but both in regard to the establishment of factories by capitalists and the growing of the beets by the farmers, there is some preliminary work to be done. Farmers who have not been in the habit of growing roots-and probably least of all, sugar beets-unless very careful, may find their initial efforts disappointing, though not necessarily so if they take trouble to inform themselves as to methods and make wise choice of the soil. In the present and previous issues of the FARMER'S ADVO-CATE, the results of a great deal of practical experience in sugar-beet growing have been given. and which will help the readers to attain success. Judging by what has taken place in other countries, once the industry gets a foothold it will soon attain large dimensions, and immense quantities of beets will be required to keep the factories running. Now, we would suggest the wisdom of farmers preparing to meet that demand even though a factory is not going up this year or next in the immediate vicinity. In any event, favorable freight rates will enable the roots to be shipped to considerable distances and still leave a fair margin to the grower. There need be no loss to the farmer. because, even though there be no factory demand, the roots are extremely valuable, as our readers well know, as food for dairy cows, swine and other live stock. Hence the farmer will simply be providing himself, at no risk, with an additional supply of a most excellent succulent food for late fall or next winter feeding, and he will have gained valuable experience. It is not necessary to launch out on a large scale the first year. A half or quarter of an acre, or even less, will do for a trial; only let the land be the very best root-growing land (not new) available this spring, and then follow the most approved methods at each step throughout the season. Make an exhibit of them at the local fairs next fall, if matured in time; and, what is most important of all, have them tested for sugarmaking quality. The more generally approved sorts appear to be the