

sum to lie ungathered as the price of *indifference* in regard to the possibilities of the dairy cow. This sum, divided amongst these, would give each of them \$136.56, almost enough to give one son in every family the benefits of a higher education for a whole year.

Mr. Blue gives the average returns of each cow per day as 18½ cents from the cheese factories, produced by the 2,784 pounds per season cow. The 5,000 pounds per season cow would swell this sum to 33,225 cents; multiply the difference, 14,725 cents, by 710,519, the whole number of milch cows in Ontario in 1884, and we have the magnificent increase of \$10,452,392.27 on the supposition that the standard cow in the private dairy is not superior to that in the cheese factory roll, and that she is quite as susceptible of improvement. Men bewail the rich stores of honey that are left to lie ungathered in the beautiful fields of Ontario. How much more should we bewail the cargoes of butter that are not forthcoming, and the rivers of milk that never flow, and the millions of money distributed in other lands, because of the low standard of the dairy cow with which our countrymen are content.

The calculation in both cases is for only 156 days in the year. Extending the duration for a longer period, which is certainly legitimate, would still further swell the revenue.

The capabilities of the leading dairy breeds in this country have not as yet been determined by way of test, unless in a few isolated instances.

Mr. Thomas Guy, of Oshawa, a leader of the Ayrshire interests in Canada, has done something in this way. In 1882 his herd, which won first prize at the Provincial, Kingston, as best herd of five cows for general purposes and profit, gave him an estimated aggregate of milk each for nine months in the year of 7,290 pounds, but, as the milk was not weighed daily, the estimate is only an approximation, though most likely a close one.

This furnishes one instance of the possibilities of one Ayrshire herd of five cows in one year.

Allowing for the larger amount of milk given during the first months after calving, this brings us to the 5,000 pound cow for the cheese-making season.

As regards Holsteins lengthened tests have not been made in this country, owing to the recent introduction of the breed here. We are indebted to Smiths & Powell, of Lakeside Farm, Syracuse, N. Y., who claim to be the most extensive owners of this breed of cattle in America, for information in regard to them.

For some years past those gentlemen have kept records of their entire herd with the utmost care. In 1881 the herd of matured cows averaged 14,164 lbs. 15 ozs, and the two-year heifers 9,711 lbs. In 1882 the entire herd of eight three-year-olds averaged 12,388 lbs. 9 ozs. On April 1st, 1884, ten cows of this herd had made records of from 14,000 to 18,000 lbs. each, the average being 15,608 lbs. 6 3-10 ounces, which included every mature cow in the herd, that they had owned long enough to make a year's record, except one kept for family use. These represent glorious possibilities even though coming from choicest specimens of the breed.

No one will think of using the famous little Jersey in the cheese factory, but in the creamery we really cannot do without her. Thousands of Jersey cows make their stand and record of two pounds of butter per day, a story well accredited by the A. J. C. C. Register. Indeed, our townsman, Mr. Valancy E. Fuller, has demonstrated that the entire Stoke-Pogis family, so far as age has admitted of their being tested, come up to this standard, to say nothing of the almost

fabulous record of Mary Anne, of 36 lbs. 12¼ oz. in seven consecutive days, and 867 lbs. 14¼ oz. of butter in 11 months and 5 days. Not forgetting that there is but one Valancy E. Fuller and but one Mary Anne of St. Lambert, the thousands of standard Jersey cows in the United States and in other lands abundantly demonstrate the possibilities of this breed.

Then the Shorthorn as a dairy cow must not be hastily pushed aside. She is the only cow, so far as we know, that answers fairly well for both dairy and beefing purposes, yet allow me to ask whoever yet saw a very fleshy Shorthorn cow that was at the same time an abundant milker? It is just possible that the sooner the dairymen cease to make large account of the value of their pets as flesh-producers the better. Observation at least has taught us that large milk production and great flesh production at the same time are impossibilities.

The great question with dairymen is the *greatest value in milk, butter or cheese at the least outlay for keep*, and till some one will tell us which of the breeds will best fill the bill in this respect, we feel that we are yet in the alphabet of that book of research, that will one day answer this question. At the recent British Dairy Show in London, England, the champion prize (quantity and quality considered) as best milker was given to a Shorthorn cow not eligible for registration. Mr. F. M. Watson, of Roseville, Ill., has just called our attention to a record of 10,619 lbs., made by one of his Shorthorns in nine months, so that it is clear that this breed are no mean competitors for dairy honors.

The best breed of cattle for any purpose in the abstract, who as yet will take it upon himself to say? Then in regard to the beefing breeds who shall tell us which is absolutely the best? It would be correct to say that Shorthorns have hitherto proved themselves the general purpose breed in this country, but this does not determine that so it shall be always. Our experience here in other breeds has been somewhat limited, hence we dare not pronounce with absolute certainty how it shall fare with them in coming days. It may be that some of the new introductions will send the Shorthorns to the wall, or at least force them to share their stanchions. Some new breed may come upon the arena in the days that are at hand and take possession of the land.

The world still moves. Only yesterday we looked upon a new breed of fowls that are first being propagated in Ontario, and for which we expect a hopeful future. They originated in New England, and, along with John Dimon, the originator, have been removed to Walkerville, Ont. They are called the "Dillon Creeper," and are very beautiful specimens of the Plymouth Rocks, supported on the short legs of a duck without the web feet. We are thus reminded that in treating of the live-stock industry, we treat of a subject that is endlessly progressive, and in regard to which we should draw conclusions with the utmost caution.

Similarly as to the best breed for dairy purposes, we look upon that matter as undetermined. The man who takes upon himself to say that any one of the existing breeds is absolutely the best is certainly chargeable with temerity. It may be very proper to say that one breed *has* proved itself the best for butter production, and that another breed excels for cheese-making purposes, but that is different from saying that it is the best. Some of the dairy breeds have fallen into the hands of men of great enterprise and hence their capabilities have been more fully developed and more accurately ascertained than those of other breeds, while in nearly all the experiments and tests that have ever

been made, we have had no full account of the amount and kinds of feed given, which is a great misfortune. Hence, with all the testing and with all the advance that has been made, we are still floundering amid the sands of uncertainty, lured by what may prove a deceitful mirage. It is certainly important to know the possibilities of any breed or cross of dairy cattle in their individuality, but it is of far more consequence to ascertain their mean value for any purpose.

(To be continued.)

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### Improving the Quality of Our Butter.

The importance of an improvement being made in the quality of our butter cannot be too strongly impressed upon the butter-making portion of our dairymen. So important and necessary an article of diet should be a strong incentive to every producer to strive to have the best goods to place before his customers, in order that he may reap the largest possible profit for his labor. It is high time that some steps were taken of a public character to endeavor to show to the dairyman the great loss that is sustained in this branch of dairy husbandry by the poor quality and low standard at which our butter is estimated both at home and abroad; and the question may very naturally be asked, what steps would be the most practical to advocate to bring about this desirable result. We think more attention should now be given to this subject at our annual conventions than it has heretofore received. But even here is a difficulty, the cheese interest preponderating so greatly over the butter interest, the cheese producer looks upon it as secondary to his branch of the dairy business. We think there is no doubt that in the region where the conventions are held, cheese-making is the more profitable, and hence it receives the most attention at the conventions; and, as money making is the ruling principle that prompts the dairyman in the prosecution of his business, we can not blame him for giving that branch of his industry that pays him the best the largest share of attention. On the other hand we must have butter, and what we want is good butter, which, if the industry is intelligently prosecuted, is just as easily made as the poor stuff that is so extensively thrown upon the market, and for which we are called upon to pay an extreme price, as all the butter put upon the local market is by the various makers classed as A1, and woe to that man who ventures to criticise the quality. The art of butter-making is a simple operation, and when all the details in connection with its production are intelligently carried out, good butter will be the result, and good butter will always command a paying price; and if the producer could only realize the immense loss that is sustained by an inferior article being produced, he would pause in his operation and ask himself the question, How can I improve the quality of my butter? This same question could and has often been asked in reference to the cheese production before the introduction of the factory system. We well remember what the character of the cheese was at the time when the production was confined to the small dairy. Good cheese was the exception, now we may say it is the rule; and could the same system be applied to the butter product we should find a very gratifying improvement in the quality. The creamery system seems to us to be the only means by which this change can be brought about.

It will take a long time to effect much change in the private dairy. Butter made by a variety of persons will naturally be of a very varied character, and to attempt any innovation upon the time-honored system in use would require a patience that would put