

The Dairy.

A Glance at Our Dairy Industry.

The winter season being the time for discussion and making preparations for the succeeding spring, our farmers should now be well informed in matters of fact in order that they may arrive at correct conclusions. That our dairy business must make rapid strides, and undergo great changes in the near future, may be regarded as certain. Already, where much stock is being raised, cheese factories have been turned into creameries, and the systems of butter-making are undergoing radical changes, although our cheese makers, so far as the system of manufacture of this product is concerned, have little change to hope for, their reputation being firmly established in the leading markets of the world.

In butter-making, however, there are many live issues, and the course of events cannot be predicted with certainty. If intelligence prevail over boom, our future course is clear. We will then adopt the best methods, no matter from what source they spring. In Europe, where the business is reduced to a science, the centrifugal separator is largely in use, and there is no reason why dairy farms, with 25 to 100 cows, should not be dotted over our own country. The centrifugal system is inapplicable where the milk must be gathered from a large circuit of farmers. It does not pay to procure a separator for less than 20 or 25 cows; but the hand separators, which are gaining ground in Europe, are admirably suited for smaller dairies, and are within the reach of the average farmer. The hand separator skims from 20 to 22 imperial gallons per hour, with little more effort than is required to turn a grindstone. The time has now arrived when the farmer can milk his cows in the morning and convert the milk into butter in time for breakfast, about two hours after milking. This is as it should be in a progressive age, and it is quite likely that the system will advance in popular favor in localities where much stock is raised, for the skim milk can be fed warm from the cow, it being then in the very best condition for feeding, and will produce almost as good results as unskimmed milk.

But our creamery men are so chained to the present system of cream-gathering that it is likely that their demands will prevail, although they are convinced that many obstructions yet lie in their way to success. They cannot dispense justice to their patrons owing to the difference in the qualities of cream delivered; they cannot procure the cream in the best condition for butter-making, some being sweet and some sour, and there are always a few uncleanly farmers in every community, the quality of whose cream is enough to deteriorate the whole batch of butter. The virtue of our creamery butter consists in its uniformly good quality, but if the same skill were uniformly applied in private dairies the quality would be uniformly superior. Some dairymen, from interested motives, deny this, but to say that better butter cannot be made when all the conditions are under the control of the maker, is to say that butter-making is a random business, there being no science in it.

It is in place here to glance at what our Governments are doing in our dairying business.

Our Ontario Government deserves great credit for the manner in which it is opening out markets for our dairy products at the Colonial Exhibition. Mr. J. W. Robertson, professor of dairying at the Model Farm, is bringing the matter prominently before the British public by numerous contributions to the press, by lecturing and interviewing. It is a remarkable feature in our system of agricultural education that Mr. Robertson has been taken from the vat and the churn and appointed professor of dairying, thus overstepping those who have had a college education without practical experience. His success will be worthy of note in making future appointments. He is resolved upon managing the business in his own way, and is willing to adopt the best methods that can be obtained. He enjoys greater confidence amongst our farmers and dairymen than all our previous professors of dairying combined, and he is a diligent student of the principles of his profession.

The Dominion Government have also meddled with our dairy business. We condemned their policy on a previous occasion, but they have not heeded our warning, and they are still persisting in the same policy. They engaged Mr. W. H. Lynch, a vendor of patent dairy apparatuses, to write a pamphlet to be distributed free amongst our farmers. We condemned the principle of educating our farmers in this way, and we also pointed out the fallacies in the author's systems of dairying. We have just received a copy of a new and revised batch of this literature. We believe that the agricultural and dairy journals of Canada are doing all that is practicable in the dairy education of our farmers, and the Government have no right to tax them for what they do not want or need. What the Dominion experiment stations will do for our dairying interests remains to be seen. Our expectations are not very sanguine. It remains with our dairymen to apply the truths which have already been demonstrated, and we therefore see little or no new work that can advantageously be put into the hands of scientific experimenters.

Canadian Dairy Products at the Colonial Exhibition.

The British journals are teeming with reports about the Canadian exhibits at the Colonial Exhibition, and all with one voice speak in the highest commendatory terms of the quality of our exhibits. This is not only flattering to our farmers and our country, but it must also add greatly to our agricultural prosperity in the future. The English markets demand the best of everything, and when it once becomes generally known that Canada stands pre-eminent in the production of such a quality, Canadian productions will rise in price, and the demand will be constant. These astonishing results do not fall to the due of the honesty and intelligence of our farmers alone; our soil and our climate bear their share of the credit. Now is the time to push the business. We quote the following from the agricultural writer of the *Morning Post*, who made a thorough inspection of our dairy displays:

First, as to the butter. That which was tried was two months old, and had been for ten days (and ten days of heat) in the Exhibition. It was not at all salt, the natural texture was well preserved, it was well and solidly worked, and of fine, meaty flavor. It was

equal to our best butter, and this, it is said, can be placed on the English market at 1s. a pound. There was none better at the London Dairy Show. The Canadians are trying hard to meet the markets in this country, and this butter will be imported fresh in 5 lb. tins, which can be obtained regularly by the householder. But it was in the cheese department that the greatest perfection has been obtained. Here there are in all some 400 cheeses, all made on the Cheddar system, and all of a uniform high quality. Out of the 1,000 cheeses shown at Frome last month it would have been impossible to have selected 50 cheeses of such a uniform quality as the 400 on exhibition at the Canadian Court, while the first prize winners at that show would have been run very close indeed by most of the Canadian. The cheeses shown vary in size, the "truckles" being about three or four pounds smaller than those usually made in the West of England, and the ordinary sizes weighing about 50 lb. to 70 lb. against the 80 lb. to 100 lb. of the deep Cheddars of the West of England. The Canadian cheese is also earlier in maturing than our own Cheddars, the cheese in the Exhibition being about six weeks old, and being then well matured. At that age our English cheese would be still soft and curdy. The Canadian cheese is mellow, silky, and meaty to the palate, solid in body, and of fine grain and texture, is rich and nutty in flavor, and is shapely in size, clean in appearance, and smooth and clear in the skin. It is a great pity that at the show at Frome a few lots of Canadian could not be sent for competition, for it would prove such an "object lesson" to the farmers of the West as they would not soon forget. This exhibition opens up a very great question for the English cheesemonger, and that is how it happens that Canada has been able to produce so even and high a quality of cheese. It is not in the factory system that the answer is to be found, for the United States has factories, and its cheese is much inferior to Canadian. Cheddar cheese has really become the world's cheese, and is made not only in various parts of Great Britain, but on parts of the Continent, in Canada and the United States, and in the antipodes. In the latter place, Victoria produces a higher quality than any other place. The subject of Cheddar cheese in every part of the world requires to be investigated, and a more useful work could not be undertaken by the Department of Agriculture at Whitehall. A good investigation would give such a mass of practical details that could not fail to be useful.

Major Alvord told the Boston milk producers that he had seen much pure milk which did not show 11 percent of solids.

An old milkman says in the *Country Gentleman*: Use cleanliness; never mix warm and cold milk; see that the animal heat is taken out before starting with the milk, and know that your cows have pure, clean water to drink.

The English dairymen are ahead of us in some respects, says Prof. Arnold, viz: In skill in feeding and husbanding manure. They feed very economically. If our dairymen would economize as well, they would get rich and make their farms grow rich at the same time.

Professor Weber has been analyzing some of the butter, so-called, sold in the Cincinnati market. One sample contained 20 percent of pure butter—all the rest a smaller proportion, down to 6 percent—the remaining 94 percent, consisting of lard, tallow, salt and coloring matter. Of the entire dozen of samples analyzed, the average contents of pure butter was a shade over one-tenth—nine-tenths being adulteration. This compound sold for from twenty to twenty-three cents a pound. It cost the retailer from eleven to twelve and a-half cents per pound, and probably cost the manufacturer from seven to eight cents a pound.