

Annual Report of the Dairymen's and Creameries Associations for Ontario.

BY SECRETARY WHEATON.

[No other publication of the Department of Agriculture for Ontario is more widely read or more highly appreciated by the farming community than the annual reports of the Dairymen's and Creameries Associations of the Province of Ontario. This report for 1893 has lately been issued, and is now being distributed to those entitled to copies. It includes a verbal report of the addresses delivered at the Annual Convention of the Dairymen's Association of Eastern Ontario, the Dairymen's Association of Western Ontario, and the Ontario Creameries Association, and a synopsis of the work carried on by these organizations during the year. It contains 240 pages of spicy and interesting reading matter, filled with the latest thoughts and the newest ideas on all the important and necessary features of dairying in Ontario.]

Owing to the increased interest in dairy matters in the Province, these reports will be of more value to the farming community. The reports for 1893 are, on the whole, more valuable than many previous ones, from the fact that at one or two of the annual conventions more enthusiasm was aroused, more interest taken in the proceedings, and more beneficial discussion brought out than at any former gathering. The proceedings of the Western Association alone continued for three days, and comprised seven sessions of from 2½ to 3½ hours each, thus affording time for the discussion of all the varied phases of dairying. There is no better means of getting into a small compass practical information on many subjects than a convention of this kind. Speakers are always prepared to do their best and give information in the best form and in the smallest space, while the discussion is always terse and to the point.

Among the prominent agriculturists, dairymen and scientists who delivered addresses at these conventions are Hon. Jno. Dryden, Hon. Thos. Ballantyne, Jno. Gould, Esq., Ohio; Dr. Van Slyke, Geneva, N. Y.; John Boyd, Chicago; Professors Robertson, Fletcher and Shutt, of the Central Experimental Farm, Ottawa; Prof. Dean, O. A. C., Guelph; C. C. James, M. A., Deputy Minister of Agriculture, Toronto; D. Derbyshire, Brockville; D. M. MacPherson, Lancaster; J. S. Pearce, London, and a number of other practical men.

The addresses of these men, who are skilled in their own particular lines, serve to make this report of special value to every dairy farmer as a practical text-book on all branches of dairying, and also as a book of reference to which he can refer for information on any particular portion of dairy farming.

PAYING FOR MILK BY THE PERCENTAGE OF BUTTERFAT.

The system of paying for milk at cheese factories by the percentage of butterfat is taken up in all its bearings, and conclusive evidence furnished to prove that it is the only correct and just method of paying for milk supplied to a cheese or butter factory. The following are a few extracts bearing on this subject:—

Dr. Van Slyke—"All cheese factories have, until recently, paid for milk according to weight alone, and at present this is the almost universal method. Each patron receives, by this method, the same amount of money for each hundred pounds of milk delivered at the factory at any given time. This method is based upon the assumption that, for the purpose of cheesemaking, milk is milk; that all kinds of normal milk are of equal value for cheese production; that one hundred pounds of one patron's milk will make just the same amount of cheese as one hundred pounds of every other patron's milk. The old method can be fair only in case the foregoing assumption be true. Now, is it true that one hundred pounds of one herd's milk will make just the same amount of cheese as one hundred pounds of the milk of every other herd? We can answer the question by saying that in our investigation we have found normal milk, one hundred pounds of which made 8.25 pounds of cheese; and, again, we have found normal milk, one hundred pounds of which made 14.25 pounds of cheese. Here is a difference of six pounds of green cheese for one hundred pounds of milk, and between these extreme limits we have found all gradations. No more figures need be presented to show that milk varies greatly in its cheese-producing value, and, hence, it is not true that one hundred pounds of one patron's milk will make just the same amount of cheese as one hundred pounds of every other patron's milk. The old method of paying for milk is, therefore, founded on a false basis, and it is eminently unfair to pay the same price for one hundred pounds of milk, regardless of the amount of cheese that can be made from the milk."

Prof. Robertson—"I am glad, indeed, to know that the work of Dr. Van Slyke agrees almost mathematically with the work we have been carrying on for the past two years. The work we have been carrying on is not so thorough, from a chemist's standpoint, but it is almost as large, from a cheese-maker's standpoint, and the results agree almost identically in establishing that the cheese-making quality of milk is in proportion to the butterfat."

Prof. Dean—"The best argument is that, paying by this test, patrons are not likely to be accused wrongfully of tampering with their milk. If the new system did nothing more than this, it would

be well worth all the trouble and expense. If a man is once accused of skimming or watering his milk, that accusation stands as an everlasting disgrace upon him and his family. To avoid any chance of accusing an innocent man wrongfully would be worth all the trouble and expense of the new method."

D. M. MacPherson—"This Babcock test is one of the greatest improvements in our factories. It enables us to make better cheese and more cheese for a given quantity of milk."

A. T. Bell, Tavistock—"I am satisfied that what we want now more than any one thing is to have the milk well cared for, so that it will arrive at the factory in the best possible condition; not that we have arrived at perfection in the art of making cheese, by any means, but I believe we are nearer that goal than the patrons are in caring for their milk; and I do not know of any surer way of reaching that desired point than by adopting the system of paying according to quality. It is the testimony of all cheesemakers where this system has been adopted."

Inspector Millar—"When I inspected the cheese I found a vast improvement in the quality. I attribute a good deal of this improvement in the quality of the cheese to the introduction of this system of paying for milk. It also has a tendency to induce the patrons to feed their cows more liberally, give them better care, and in return they will receive larger profits."

WINTER DAIRYING.

This subject is treated in a systematic and practical manner by a number of speakers.

Prof. Robertson—"This winter dairying embraces the whole round of farm activity. From May to the beginning of the following October, cheese and buttermaking, and then from the end of October till the following May, buttermaking exclusively,—winter dairying and summer dairying; these include the whole round of dairy farming; and if the farmer will look after these things, keep his cows well, and then make a product of the very best kind, co-operating with his neighbors, he will find himself, through dairying, a richer man, a stronger man and a better man. Winter dairying will do more for the material welfare of the farmers than anything of which I have knowledge. It will result in making a people socially happy, and so well up in making money out of their business that they can leave their children better equipped to fight life's battles than they themselves were left. When we have winter dairying generally adopted, and, through corn ensilage, horse beans and sunflowers, are getting the largest possible yield of the richest milk per acre as well as per cow, we will have harnessed the very sun of the heavens as the chief workman in our business, with ourselves as competent managers. Without the winter dairy, the farmer feeds one-third more stock for the same return. By sending the milk to the winter dairy, therefore, you not only receive more money for the cows you keep, but you are able to keep more cows. Doing the work at home, if the farmer attempts to increase the number of his cows, he imposes more work on the women folk than they can well take care of. The men on our farms work too hard in the summer and not hard enough in the winter. Our women work too hard in the summer, and then try to get rested by doubling the work in the winter."

Mr. James Whittom, Wellman's Corners—"Now, I claim it is the extra care that the cow gets which accounts for this; and we want to go on with winter dairying. I received last year from Prof. Robertson a cheque, for my share, of \$193 for eight cows, besides their skimmed milk, which I claim netted me \$75. I had eight pigs in the pens. Say they were gaining about one pound a day, as pork sold for \$6 per cwt. last winter. My cows last winter just cost me eight and a-half cents per day to feed. Consequently, I had a pound of butter for two and a-half cents. Now, if one of you can make cheese cheaper than that, I would like to hear it. I can give you a rough idea of what we took from these eight cows in 1892: Cash from cheese factory, \$505; by products, \$80—that is the sale of calves and the profit and whey; cash from creamery, \$193; by products, \$75—in all, \$855; cost of feeding these cows, \$294. That leaves a net profit of \$70.75 per cow."

J. A. Ruddick—"But now, when they find that by feeding a little extra and keeping the cow in good condition by proper care and attention, they can get from 95c. to \$1.10 a hundred for the milk, and have skim milk besides, and get ready cash for it instead of taking their butter to the store to be mixed with other makes, they are giving fuller attention to winter buttermaking. One of our patrons thought that the skim milk returned to him from the creamery paid him for the extra amount of feed which he gave to his cows for the winter time, and, if so, then he had his butter for the trouble of milking his cows and taking the milk to the factory."

D. M. MacPherson—"It makes a big difference in the profit of dairying whether you are working for the cows or the cows are working for you. We find in the best experience that the cows are working for us six or eight months in the year, and for the rest of the year we are working for them. We must harness the cows and use them every day. The cow can produce for ten months of the year. I make them work even when they are not producing milk, for I feed them so that they are improving their condition and thus preparing themselves to produce better results than they otherwise would do."

SELECTION, FEEDING AND CARING FOR DAIRY COWS.

The experience of a number of practical men is given on the selection, feeding and caring for dairy cows, so as to realize the most profit:—

Jno. Gould, Ohio—"Without trenching on what I am to say this evening, I may say that our winter dairy is becoming even more profitable than our summer dairy, because of our success with the silo. I am convinced that a man can keep his cows cheaper in the winter than in the summer. I figure it out this way: We can raise eighteen tons of good ensilage to the acre; it costs \$8 for the labor of raising an acre of corn, and \$4 to put it into the silo. Each acre will keep two and a-half cows seven months, or \$12 for the roughage for 2½ cattle, outside of the cost of the land. Let us say that interest on land and the taxes are \$2.70 an acre, a total of \$15 for the roughage for 2½ cows for seven months. If that is not cheaper than pasturing on grass, my mathematics are at fault. A cow eats more with her feet than she does with her mouth in our summer pastures. Our ration for our winter milkers is 50 pounds of ensilage a day, 5 pounds of wheat shorts, and 5 pounds of mixed hay. We have not succeeded in getting cows to eat much more than that. What does this cost us? Fifty pounds of ensilage will cost a little less than three cents. You may say I figure at cost. How else are you going to figure? What is the market price of ensilage? If there is no market, I have no right to charge it to my cattle at more than cost of production. Five pounds of wheat and shorts costs me four cents. But I must qualify that. We raise oats and swap them for the mill feed. Why? Because I find that with ensilage a hundred pounds of wheat shorts is worth as much to me as a hundred pounds of oats, and a hundred pounds of oats will buy a hundred and fifty pounds of mill feed, and so I have one-half more fertility to go back on the land. Five pounds of clover hay costs with us two cents. Call it 8½ or even 9 cents in round numbers for the ration of each cow. What are these cows doing on this ration? All the cows that we had milking last Monday had been in milk since last September or October. The average yield for the whole dairy was 28 pounds of milk per head per day. I sell that milk for \$1.40 net per 100 pounds at the door. That comes very close to 40 cents each for the cows, as against a daily cost for feed of 8½ cents. Then there is the fertility that goes back to the farm. I get all mixed up when I come to charging for crop, and then for fertility which is used to raise another crop. But the fertility is there, let it be worth more or less. That is my experience with the silo, and I thank you for your kind attention."

"It is now conceded, we believe, that the environments that we place about a cow in the way that we feed her, and care for her, are equal in importance to the breeding, for breed as we may, if there is not feeding and care to correspond, there will be a failure of the other; for, look at the matter as we may, the food is the source of all profitable returns from the dairy, and even food must have an ally in the form of stables and sanitary conditions of high order, or there will be a wastage of food material, or demand for extra supplies of nutriment to make good a demand that could have been met quite as well and far more inexpensively with well-appointed stable environments."

Prof. Shutt—"Of all the coarse, bulky fodders, corn gives us the largest amount of real cattle food per acre. The figures to prove this you will find in the report of this Association for 1891. They were deduced from the careful field experiments and analysis made at the Central Experimental Farm. Moreover, the corn crop is one that can be produced cheaply: it is more or less a sure crop; it is one that cleans the land—all very important matters. These are among the chief reasons why I so warmly recommend the growth of Indian corn to all who keep cows."

POINTS IN DAIRY AND FARM PRACTICE.

Hon. John Dryden—"What was the reason for this falling off? Undoubtedly, it was the tremendous drought which affected the whole Province, but more especially the Western section. Mr. Gould has told us of his friend whose cows never knew there was a drought. That is what is wanted: we must make provision for such unfavorable season. The dairyman, more than any other farmer, can provide for these special circumstances. There is no doubt he has his business more directly under control than any others of us. The man growing a crop of grain may work hard and exercise the greatest skill, and bring his crop nearly to the point of perfection, only to have it swept away by a storm. But the dairyman is not thus affected, and our people ought to be taught how to provide in advance for difficulties which may arise."

Prof. Fletcher—"The horn-fly is a new insect, which was introduced into the Eastern States five or six years ago. This is only the second year since it first appeared in Canada, but it has increased and spread so quickly that it has produced great consternation among cattle owners. The prevalent assertion that the flies or the maggots have caused the death of cattle by boring into the horns, head or body, is entirely inaccurate: the whole injury is due to the bites of the fly. However, the infection from this cause is in many cases so great that animals fall off rapidly, both in flesh and blood of milk."

D. M. MacPherson—"Farming can be made to pay by some who are called the best young men of our country—brilliant, talented men, with strong