

Eastern Ontario Dairymen's Association.

The annual meeting of the Eastern Ontario Dairymen's Association was opened in Belleville, on Wednesday, January 6th. Cold weather did not dampen the enthusiasm of the dairymen, and quite a large number were in attendance. Shortly after 10 o'clock, Mr. D. Derbyshire, President of the Association, and one of Ontario's best known dairymen, delivered the

PRESIDENT'S ADDRESS.

He showed that the exports of dairy products, including bacon, which is a by-product of the dairy farm, would amount to over fifty-one million dollars during the past year. Great improvements had been made, and Mr. Derbyshire was confident that this year our exports of dairy products would reach a total value of fully \$60,000,000. The industry deserved the heartiest support.

SOME DIFFICULTIES.

In spite of many improvements, much still remains to be done. The makers are often poorly paid, and many factories are dirty wrecks, and very poorly cared for. Mr. Derbyshire thought that the factories should be painted, the grounds ornamented, and something done to develop higher ideals. But the real difficulty lies with the man who produces the raw material. It is the careless, slovenly farmer, who does not read and attend the meetings, who injures the industry by supplying a poor raw product to the maker. Much good has been done by the establishment of refrigerator cars and cool-curing rooms. Twenty-one instructors have been in the field during the past summer, but more were urgently needed, and Kingston Dairy School should be enlarged to meet the requirements for further dairy instruction. The motto for the dairyman should be "Clean and cool," and he suggested that in some places, where bickering and jealousy existed, a regeneration of heart was essential to successful dairying.

Brief, pointed speeches were given by a number of prominent dairymen, including Henry Glendinning, of Manilla; Wm. Eager, of Morrisburg; J. Huyck, of Prince Edward; J. R. Dargavel, of Brockville; J. A. Ruddick, of Ottawa, and Jas. R. Anderson, of Prince Edward.

The afternoon session on Wednesday was opened by Mr. Glendinning, the subject being

THE SELECTION, CARE AND FEED OF THE DAIRY COW.

The purchaser of a dairy cow must depend on his knowledge and judgment in selection of a suitable type for his purpose. Experience has shown that we seldom have a first-class dairy and beef cow combined. As man has developed the animals, nature has been at work, and we have marked differences of conformation in the two classes of animals. A good dairy cow should show no trace of masculinity, and there is no benefit in a large size unless accompanied by increased production. By means of a chart, showing a cow of proper dairy type, Mr. Glendinning illustrated his address, and succeeded in producing quite an interesting discussion.

GOOD CARE ESSENTIAL.

For the summer care of the cows, nature has generally made a generous provision, in the way of pure air and healthful conditions. The hornfly is about the worst enemy they have to contend with. Mr. Glendinning has found the use of crude petroleum to be the cheapest and most effective remedy, as it not only acts as a deterrent, but also kills the flies. He did not even recommend the use of crude carbolic acid in conjunction with it, as his object was to kill the flies, and the petroleum proved very effective in that particular.

WINTER CARE.

In the winter care of cows we must have well-ventilated stables—clean, comfortable, and sanitary. The currycomb and brush should be used every day, which adds much to the comfort of the animals. The proper ration should be fairly bulky, palatable, succulent, free from objectionable flavors, and contain the proper nutriment for the production of milk, and it must be cheap.

A suitable ration for a dairy cow would be a nutritive ratio of one of protein to about five and a half or six of carbohydrates. Natural pasture, such as blue grass and white clover, forms an almost ideal food for cows, but when cured and fed in winter it fails to produce such good results. We should learn from this to have the animals approach as closely as possible to June conditions. An excellent winter ration would be:

Corn ensilage	40 lbs.
Clover hay	10 lbs.
Pea meal	4 lbs.
Wheat bran.....	4 lbs.

Ground oats and oil cake could be used in equal proportions in place of the peas, if more convenient. This ration would be fairly succulent; would contain about the right proportion of protein to carbohydrates, and would be suitable for a cow of about 1,000 pounds weight, producing from 25 to 30 pounds milk per day. To feed successfully, we must be economical. This is where the greatest skill is required. We must push toward the maximum production, but at the same time avoid too great pressure. Here is where the greatest skill is shown, and in the exhibition of that skill lies a larger measure of success.

THE FORMAL OPENING.

On Wednesday evening the meeting was formally opened by addresses of welcome from the mayor and several prominent citizens, and many were the kind words which the good people of the "Beautiful City of the Bay" had to say of the officers and members of the Eastern Ontario Dairymen's Association. The addresses were responded to by Prof. Ruddick, of Ottawa, who compared the conditions existing at the present time with those of the early days when the association was formed, and predicted still greater prosperity for the future.

Mr. Thos. McGillicuddy gave an inspiring address on the "Footprints of Dairying," showing the march of progressive dairying from the building of the first factory in Oxford County to the present day, when fully 300,000 people are engaged in the great army of modern dairying. It has been an onward, upward march of progress.

ORGANIZATION THE WATCHWORD.

Hon. John Dryden then addressed the meeting. Co-operation between the Dept. of Agriculture and the Dairymen's Association, and thorough organization, will do much to advance the interests of dairying. "If you do the work you have to do just a little better than anybody else, there is lots of room for you, and abundance of work to do," said the Minister of Agriculture. "I take my hat off to the man who does things; talking is all right, but we must have men who do as well as talk." There are five great essentials to progress in the future work in Canadian dairying. These are education, unity, diligence, perseverance, and enthusiasm, and by the exercise of these we can hope for still greater success in the future.

At the morning session on Thursday, Mr. G. G. Publow, Chief Instructor for Eastern Ontario, gave an account of his work in connection with the dairy syndicates. This system, by which a number of factories are grouped together and placed under the charge of a competent instructor, was adopted a little over one year ago. Twenty-two syndicates were formed, comprising 551 factories, and during the season the instructors made a total of 3,317 visits.

TESTS FOR ADULTERATION.

During the past summer 44,310 tests for adulteration were conducted, and only 359 were found to be either watered or skimmed. On the other hand, in 10,693 fermentation tests, 9,020 were found to be more or less tainted. From these figures Mr. Publow concluded that it was education in regard to properly caring for milk, rather than prevention of fraud, that was essential. Considerable trouble had been caused by the development of some form of bacterial life, causing the cheese to become open, acid, and to have a very bad flavor. In some cases it was almost impossible to trace the cause, as it occurred in factories that were kept scrupulously clean, but, usually, it was much worse in factories where the whey was returned in the milk-cans.

THE SCIENTIFIC SIDE OF THE QUESTION.

Dr. W. T. Connell, Bacteriologist, Kingston Dairy School, in referring to this subject, said that the trouble was due to a yeast, a very low form of plant life, sometimes found on trees and grasses. The remedy was to thoroughly clean the factory, sterilize the utensils, avoid sending whey home in the milk-cans, and use care in placing the milk away from the shelter of trees. He spoke of proper sanitation for factories, and recommended the use of the septic tank for the removal of drainage matter. In this system three tanks are used, the fluids passing away in

the drains, and the solids being left behind. The entire system could be erected at a cost of about \$100.00, and by it all offensive odors are avoided. The factories should be especially careful regarding their drainage system. Only glazed tile should be used, and it should be the duty of the factorymen to see that the drain was kept in order.

On Thursday afternoon a resolution of considerable importance was introduced.

LICENSING CHEESE FACTORIES AND CREAMERIES.

It was moved by J. R. Dargavel, seconded by J. W. Hyatt, and carried: "That in the opinion of this association the best interests of dairying in Ontario would be advanced by the licensing of cheese factories and creameries, and with that object in view, a committee, consisting of the undermentioned persons, be appointed, to collect information, make a report, and, if thought advisable, prepare a draft bill for presentation to this association at its next annual meeting. The committee is to have full power to lay the matter before the Ontario dairymen in such manner as they see fit. Said committee to consist of J. R. Dargavel, Henry Glendinning, G. G. Publow, and the President and Secretary of this association."

Several times in the various discussions this question had been briefly touched upon, and on every occasion the idea met with hearty support. That the suggestion may not become law for some time is very probable, but it is evident that many of the most advanced dairymen are heartily in support of the idea.

A QUESTION OF TRANSPORTATION.

"The preservation and safe transportation of butter and cheese," was discussed by J. A. Ruddick, of Ottawa. The points against our butter in the minds of the British purchaser are, lack of uniformity and rapid deterioration after landing. What are the causes of this deterioration? Simply this, that the butter is not kept cold enough at the creameries; it is exposed to heat unnecessarily in shipping to Montreal, and is not always frozen properly when it arrives there, and before being placed in the cold storage of the steamers. When butter is held at high temperature for any length of time, the fermentations which produce bad flavors commence their work, and though cold storage may check their action, the life of the butter has been shortened. To overcome this, every creameryman should see that the temperature of his refrigerator is kept down to at least 36° to 38°, by means of thorough insulation.

MOULD ON BUTTER.

Mould, which is a low form of plant life, can be prevented by careful disinfection. The whole interior of the creamery should be washed, and the ceilings, floors, etc., coated with a solution of one part bichloride of mercury to 1,000 of water. Formalin may be used as a spray for the same purpose, requiring 5 ozs. formalin to disinfect 1,000 cu. ft. The mould on the butter may be prevented by soaking the parchment paper in brine, to which has been added 3 ozs. formalin to the gallon of brine.

THE HANDLING OF CHEESE.

The object of the central curing-rooms was to give an object lesson to the factories, and in this they had been a success. During the past season 47,205 cheese had been handled at these institutions. Careful tests were made, and it was shown that a saving of 1.23%, or \$4,813.08, had been effected.

PARAFFINING THE CHEESE.

This practice prevents the cheese from moulding and losing in weight from the loss of moisture. The saving in weight had amounted to 1 lb. 6 ozs. per cheese from the use of paraffine. Some objections are offered by some of the English dealers, but these objections are in a large measure unfounded, and would soon pass away. However, care must be exercised in this regard until the principle becomes established. An effort should be made to secure better boxes for the transportation of our cheese. The present boxes are too flimsy in construction, and fail to stand the voyage. Fully 25% of the boxes are broken when landed on the other side. Heavier boxes should be used, even if the cost is increased, as the breakage of the package in transit detracts much from the appearance of the product.

PROF. DEAN GIVES SOME DAIRY RECORDS.

Prof. Dean, who is, undoubtedly, one of Canada's most practical and progressive dairymen, gave some important figures, emphasizing the importance of animal individuality. The best cow at the O. A. College dairy herd made a record of 10,214 lbs. milk in one year. The milk tested 3.5% of fat, and would produce 418 lbs. butter, valued at the price received by the college creamery at \$76.18, or at 4 cents a quart the milk would bring \$163.42. On the other hand, the poorest gave only 3,775 lbs., or a butter value of \$36.87. It is not a question of breed, nor is it altogether one of feed, but largely a question