

Imperial Board of Trade. Under the new arrangement the Commission represents the British Ministry of Food through the Allied Provisions Export Commission, located in New York. The Ministry of Food is prepared, through these channels, to purchase the exportable surplus of Canadian cheese, butter and condensed milk, of the crop of 1918. By an arrangement with the United

States Food Administrator, it will be possible to deal with these articles in such a manner as to insure some parity of prices.

The price of cheese for 1918 was the subject of discussion at the meeting. Mr. Owen Smith, Chairman of the Allied Provisions Export Commission and Mr. Mills of the same Commission, who were present, heard what the

producers' representatives and other members of the Commission had to say on that point and have cabled these views to the Ministry of Food in order to secure the necessary authority to make a definite arrangement to purchase all the cheese for 1918. It is expected that an understanding will be reached in the course of a few days, when further announcement will be made.

Representatives of the Dairy Interests Meet in Conference.

Representatives of the various branches of dairying met at Guelph on April 4 and 5 to consider the advisability of forming a Provincial Dairy Association and to discuss matters of importance to all interested in this great industry. The conference was called by Prof. Dean, of the Ontario Agricultural College. At the present time dairying is passing through a critical stage and the need of a Provincial Organization to champion the cause of dairying has long been felt by those interested. To Prof. Dean must be given the credit of taking the initial step. While the attendance was not large several problems were discussed, and the representatives of the various branches of dairying had an opportunity to become better acquainted. In the past there has not been enough unity of the branches for the good of the industry. It has been a case of a family divided against itself, which lessened the strength when an enemy was at the door.

The following recommendation was drafted by a committee and adopted by the meeting: "That a Provincial Dairy Council be formed, composed of two members from each existing dairy association or any dairy association which may be formed, and departmental representatives to be named by the Minister of Agriculture for the purpose of making definite recommendation for creating a permanent Provincial Dairy Council and request that the Minister of Agriculture take action in accordance with the above at the earliest date possible."

The first session of the Conference was devoted largely to milk and cream producers' problems. E. H. Stonehouse, President of the Ontario Milk and Cream Producers' Association, outlined conditions as they existed for the man behind the cow, and pointed out that they were far from satisfactory. At the present wholesale price of milk there is not sufficient revenue from the herds to make the business attractive. The cost of production had been investigated the past year and the results showed that dairymen would have been justified in asking even a higher price than they did for this essential food product. Mr. Stonehouse claimed that he and many others would have been better off financially had they disposed of their herds and marketed their surplus grain. A one cent raise in price of milk is usually resented by consumers who freely spend their money for substances of less actual food value. With the price of concentrates and labor as high as at present there was believed to be little relief in sight for dairymen.

G. A. Putnam, Director of Dairy Instruction, delivered a brief address in which he criticized the condition of the retail milk trade in small towns and villages. It was believed that in many instances the milk was not produced nor handled in the most approved manner. In discussing the matter of increased production the speaker believed that much could be done by more careful breeding, feeding and weeding of the herds.

A representative of the Acme Dairy of Toronto believed that farmers had the whip hand in setting the price of milk. The Farmer's Dairy representative of Toronto, backed up the farmers' position by claiming that the producer was in the best position to know what milk cost at the dairy, and unless there was a profit the producer could not be expected to stay in the business. A standardization of milk prices was believed to be in the interests of the industry as a whole.

Clean Milk is a Safe Food.

The milk problem in towns and cities was the subject of an address delivered by Dr. C. J. Hastings, of Toronto. It was claimed that investigations had shown milk to be the cause of high infant mortality. It is a carrier of a number of diseases, should it once come in contact with them, consequently the milk supply for all, children in particular, should be carefully guarded. Dr. Hastings stated "that market milk uninspected and unprotected was responsible for more deaths than any other one article of diet." The speaker contended that the man more than the barn was responsible for the high bacterial content of milk, and, in his opinion, careful sterilization of milk utensils and chilling the milk immediately after it was drawn would go a long way towards the production of clean milk. Certified milk, produced under special conditions regarding cleanliness of stables, utensils, animals, milkers and the dairy was the best on the market, but the cost of production made the price to the consumer almost prohibitive. Milk is a universal food and should be carefully handled. Pasteurization at 140 to 145 degrees and held for 25 minutes destroys most germs and does not change the digestibility, taste or quality of the milk. The Doctor advised all to take no chances on the milk supply and to pasteurize to make clean milk safe rather than merely to destroy barnyard flavors. That bovine tuberculosis was transmitted to humans was brought out in a certain investigation where it was found that 25 per cent. of tuberculosis occurring in children under 16 years of age was of the bovine type and transmitted through the milk supply. While care is taken to make nature's best food safe for dwellers in towns and cities, many dairymen are careless about the milk supply for their own families. The character of the bacteria in the milk determines the danger, for instance, epidemics of typhoid

have resulted from a convalescent of the disease handling the milk. If properly cared for, milk is a safe and one of the cheapest articles of diet. One quart of milk and one pound of steak compare in nutritive value, yet, milk retails at less than half the price of steak.

The Oleo Problem.

The address of Dr. G. L. McKay, of Chicago, on the question of oleomargarine was followed with interest. Creamerymen and producers do not look with favor on the introduction of this butter substitute into Canada. The speaker related the history of butter and margarine manufacture. The Scandinavians were mentioned as the first people to engage in butter trading, and as early as the 13th century Norway was exporting butter. The fat of milk contains substances essential to growth and development of the human body that cannot be obtained from other fats. Dr. McKay stated "that other fats were all right as lubricants but lacked certain vital nutrients found in butter." Experiments in which vegetable fats were fed to rats were cited. The result was that growth ceased, but on milk fats being resumed growth commenced. Another case was mentioned of forty-five children fed on skim-milk and vegetables becoming affected with swollen eyes and gums and deranged digestion, but became normal again when given milk fat. Dr. Harvey Wiley was quoted as saying, "I should never give children nut or oleo margarine, nor would I give children or grown persons food products containing preservatives." The speaker claimed that comparing butter and oleo was like comparing gold and brass. The oleo manufacturers camouflage their product by stating the amount of milk and cream used in making the butter substitute. There is considerable profit in mixing oleo fats and milk and cream, and the Doctor advised those wanting to use other fats to do their own mixing.

There has been considerable difficulty experienced in controlling the margarine trade in countries where the manufacture has been permitted. The laws relating to it in Canada should be rigid and strictly enforced in order that both producer of milk fats and consumer of fats be protected. France was claimed to have the most rigid law against oleo of any country, but in countries where there is laxity there has been considerable fraud and the substitute is frequently sold as the genuine article. Dairymen were advised to fight oleo at every turn as it was a substance that would hurt the butter trade, and it was a product which could not take the place of butter or milk fats for children. All branches of dairying should unite as one body to enforce the control of the margarine trade.

Dairy Industry Not Declining.

J. A. Ruddick, Dairy Commissioner, gave figures to show that dairying was not declining in Canada. The value of dairy products in Canada in 1917 was given as \$191,000,000. Since the Cheese Commission was formed 157,679,966 pounds cheese were exported, and the home consumption the past year was estimated at 20,000,000 pounds. While there had been a falling off in cheese manufacture in some districts there had been increases in others. The ice cream and cream trade was valued at \$50,000,000, and condensed products at \$8,000,000; creamery butter at \$31,080,000 and dairy butter at \$60,000,000. The cheese industry is increasing in the Western Provinces, and the home consumption of cheese is increasing. The organization of each branch of the industry leading up to a national organization was favorably spoke of.

R. J. McLean, representing the Produce Dealers' Association, believed it was a good idea for producers, manufacturers and distributors to get together to discuss problems in which all were interested. The speaker favored the butter grading system, and believed that waste and expense could be reduced by better methods of handling products such as butter and eggs.

The Cheese Factory Has Furnished Valuable Market for Milk.

Jas. Donaldson, President of the Western Ontario Dairymen's Association, presided over the cheese and butter manufacturer's session, held on Friday morning. In his opening address he regretted that the bars had been let down permitting the manufacture and sale of oleo in Canada, and urged an organization of dairy industries for protection of the industry which has meant so much to this new country. Information obtainable goes to show that oleo, while a butter substitute, does not contain the nutrients found in butter, which are essential to life. The speaker contended that dairymen should not relax their vigilance in regard to the oleo question. Regulations should be strict and then be enforced in order to protect the dairy industry as well as the consumer. Mr. Donaldson contended that the cheese business was in a critical position at the present time, owing to the price for that commodity being such as to prevent so high a price being paid for cheese milk as is being paid for milk by cities and condenseries. The speaker claimed that the cheese factory had furnished a valuable market for milk in years past and had enabled many dairymen to reduce the mortgage on their farms and to place themselves on their feet

financially. The cheese factory still furnishes a valuable market for whole milk and should receive support.

Cheese-Makers' Problems.

In discussing the question of cheese-makers' problems, F. Boyes, of Dorchester, believed that while some of the old problems had disappeared, owing to the adoption of modern methods of manufacture, there were still problems for experimenters, dairy schools and instructors to work on. Experiments to find out if it were possible to increase the quantity of cheese from a given quantity of milk and if it were feasible to incorporate a little more moisture without impairing the keeping quality of the product, were advocated. The speaker maintained that whey was worth 25 cents per hundredweight for feeding hogs, and deplored the fact that especially in the spring of the year large quantities were poured into the drains because the patrons did not have a sufficient number of hogs to consume it. The extension of the instruction service to winter months where factories made the year round was advocated.

Frank Hens, Chief Dairy Instructor for Western Ontario, led the discussion and considered that the calling together of the representatives of the various dairy industries was a splendid idea, and believed that it might advantageously be made an annual event. In the whole of Western Ontario about 29,000,000 pounds of cheese were manufactured in 1916. In 1907 five and one-half million pounds of creamery butter were made in the same district but the quantity increased to 21,000,000 pounds in 1916, consequently the amount of milk produced must have increased considerably, as the quantity of cheese produced has fallen off but little and condenseries and city trade have drawn heavily on the supply. Cheese-makers are finding difficulty in securing satisfactory help in their factories. One remedy suggested by the speaker was to make the salary more attractive, as other businesses were able to outbid the cheese business on the labor market at the present time. It is but natural for a man to offer his services to the highest bidder. With the rise in price of every commodity patrons must realize the necessity of paying more for the manufacture of their milk into cheese. In regard to moisture content of cheese, Mr. Hens doubted the advisability of making any material changes one way or another at the present time, owing to the fact that cheese may be held a long or short time. While some cheese may be a little too dry for some trades, if it were too moist it might not hold up in storage.

G. G. Publow, Chief Dairy Instructor for Eastern Ontario, continued the discussion relating to cheese manufacturers' problems. In Eastern Ontario the yield of cheese per 100 pounds of milk, as well as the percentage fat in the milk, is falling off slightly. The speaker advised care in setting the milk with the coagulants used as substitutes for rennet, but believed that there need be no more loss when using pepsin, provided milk was properly handled. The manufacture of whey butter is carried on in some factories, and the saving and utilizing of fat in whey is strongly advocated in other factories. Mr. Publow contended that if whey butter were manufactured to help supply the demand for fat, the maker be paid so much for doing the work rather than instal the machinery with the idea of making a profit. If care is taken in cheese manufacture there should be but small loss of fat in the whey.

Manufacture of Creamery Butter.

Butter-making in the creamery was the subject discussed by Dr. G. L. McKay, Secretary of an American Association of Creamery Butter Manufacturers, which manufacturers more than one-quarter of the amount of butter made in U.S. Dr. McKay dwelt chiefly upon the quality of the product turned out by creameries, and contended that yeasts and molds or other defects would largely be controlled by pasteurization of cream. Butter-makers that are really competent were considered to be very scarce. Uniformity of product depended upon the ability of the maker. One creamery was mentioned where moisture content of butter turned out seldom varied from 15 to 16 per cent.; salt was always around 3.5 per cent., and casein content around one per cent. These results were compared with another creamery where moisture varied from 10 to 17 per cent., and salt 2 to 6 per cent. The quality of the butter depends on the skill of the operator. It was contended that one of the best methods of combating oleo was with good quality butter.

To make good butter the raw material must be delivered in proper condition, but in order to secure the right quality cream it was considered necessary to pay a premium for quality. Cream should be cooled and kept cool until delivered. To do this allowing the water for the live stock to pass through the cream-cooling tank was suggested as an economical and practicable system. If cream becomes too sour it makes a tallowy undesirable quality product. Where only a few cows are kept it sometimes takes considerable time to fill a can, and unless proper precaution is taken cream becomes rancid before it is delivered to the creamery.

Dr. McKay explained how a variance in moisture test and faulty grain or texture of butter could be attributed to the method of working the butter. Crowding

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Eggs are selli time of year. Ac report for the w at country point lowest price was the price given. retail trade is aski Ottawa and Vanc With the approach on free range, it will increase rapi