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# Finding a Market for Our Milk.

## II. THE CHEESE MARKET.

THE first article of this series, which appeared last week, made reference to certain adjustments that, in all probability, will be brought about in the manufacture and sale of cheese in Eastern Canada in order that this old and well established industry may not suffer unduly from the keener competition brought about by the development of other markets for milk. For the most part we cannot see that these adjustments will mean any serious or radical changes in the methods pursued. On the contrary, those reforms in manufacture or in method of selling, which some pioneer factories have already put into effect and which Government agencies have for years been encouraging, should be sufficient to place cheese making upon a competitive level that will be fair and just to all concerned. Keener competition from other markets will merely have hastened the day when inefficiency must meet its just reward. Whether time will force the introduction of speedier and better processes of manufacture we cannot undertake to say, but the immediate improvements that seem to be demanded by circumstances are five in number. They are: (1) The co-operative ownership and management of individual factories by the patrons themselves; (2) the payment for milk according to quality; (3) the more efficient utilization of by-products; (4) the grading of the finished product by Government agents or according to Government standards; (5) the substitution of co-operative selling on the larger wholesale markets for the present expensive system. None of these various steps are entirely new. All of them are either realities with some factories or are in contemplation. What is needed is to bring about their general adoption and to secure over the whole of Eastern Canada that success which is already enjoyed by factories here and there which have made a move forward in one or more particulars.

### THE ADVANTAGES OF CO-OPERATION.

Perhaps the fundamental need is the further development of co-operative factories. It has already been said that cheese making is more or less of a community enterprise and as such is a matter in which each patron is vitally interested. No very large expenditures of capital are necessary, nor does it seem practicable to manufacture cheese from milk that is drawn from any considerable area, for the reason that the whey is considered a very valuable by-product for hog feeding at the factory and must be returned to the patron. Even though co-operative hog feeding at the factory is undertaken, there is a limit to the size of this business. At the same time there are many evidences throughout the country of the need for more capital in individual factories. Private owners seldom, if ever, have the best equipped factories and those who make on commission do not usually find it profitable to make any more improvements than are imperative. They are often men of limited means and where the annual make is small and the good will of patrons uncertain, further expenditure of capital would be venture-some. In any event the patron is really the one to whom the factory means the most in the course of a year, and even a limited observation will disclose the fact that those factories which are already owned co-operatively are best equipped and most securely entrenched in the community. Co-operative factories are able to make changes more easily than those privately owned, if only for the reason that the changes are made by the patrons themselves and for their own betterment. The capital invested in a factory by each patron need not be large and is merely a safeguard for his main business. The number of patrons will be more constant under co-operation and the patron who elects his own board of directors for the year need not worry about any neglect of his interests.

### AN ILLUSTRATION OF CO-OPERATION.

Merely for purposes of illustration we wish to refer to the Elma or Dominion factory in Perth County, which has been established on a co-operative basis for about forty years. This factory is illustrated below and stands in sharp contrast to scores of other privately owned factories. This factory is by no means the only

co-operative factory in Ontario, for we are given to understand that of the sixty or more factories in the County of Hastings, scarcely a one can be found that is not owned by the patrons. The illustration (a rear view) shows the Dominion factory to be unusually large, its make being over 250 tons yearly. At the right is one of the two receiving platforms opening into the vat room, off which is the whey butter room with two large separators and a covered whey tank into which the whey is run from the vats and which can be seen projecting outside and well covered to the left. From this large vat the whey is injected by steam to a small tank above the separators which are run on alternate days. From the separators the skimmed whey is fed into a small galvanized tank feeding the pipe line crossing the chimney to the sunken vat outside. Steam pasteurizes the whey and again injects it into the two large covered tanks on the extreme right of the illustration, from which the teams secure it to distribute to the patrons. Immediately back of the chimney is the engine room and to the right of this the press room. The far end of this is used in the winter for butter or cheese, since it is partitioned off and can be easily heated. This is a year round factory. Behind the press room, but invisible to the reader, is the cool-curing building, with storage room for ice at one end and a residence for the cheesemaker at the other. The patron has no worries from one year's end to another except to deliver his milk to the stand each morning and to receive his check, which must be forthcoming within fifteen days of the sale of the cheese (it usually comes within ten days). A making charge of 2.3 cents per pound is charged this year and this covers everything from the end of the patron's lane to the floor of the car on which the cheese are loaded for the market. Ten wagons are owned by the factory and the various routes are auctioned off each year to the best bidder, who must furnish a team and man and agree to certain rules for collection set by the patrons. The making charge covers any improvements to the factory and the salary of the sales-man as intimated above, and the board of directors are responsible to the patrons at the annual meeting. If the latter make a bad choice they must pay for it, but they can hold no one but themselves responsible. No dividends are paid, the shareholder getting his reward in the form of service from the factory. The fat plus two method is used in paying by test and milk has been paid for according to quality for about thirty years.

### PAYMENT FOR MILK BY TEST.

The old pooling system of paying for milk is doomed. It is true that not many cheese factories are paying for milk according to quality as yet, but the change will and must come if the individual patron is to get the most out of the cheese industry. We have not the figures for Western Ontario for 1919, but in Eastern Ontario only 94 out of 787 factories paid for milk according to quality. It is very unfortunate that paying for milk by test received such a serious setback in 1916 when the Dairy Standards Act was passed, but, due to the timidity of a Government and the inexcusable public disagreement of Government officials, was not put into effect. Payment according to quality is just, even if it does mean that a dairyman producing low-testing milk should receive less than his neighbor. The one man has low-testing milk merely because there has never been any advantage in producing milk of higher fat content, but the producer of high-testing milk has suffered the loss that was the other man's gain. This is decidedly unfair and by no means represents the ideal that farmers as a body are uniting to further. Why should 100 pounds of 3 per cent. milk that will make only 8.52 pounds of cheese return the producer exactly the same amount of money as 100 pounds of 4 per cent. milk that will make 10.08 pounds of cheese. The argument is frequently advanced that the fat content does not make any appreciable difference in the yield of cheese. This is a fallacious argument and is not borne out by the truth. Truth and actual tests indicate that the yield of cheese increases almost if not quite in proportion to the fat content of the milk. So far as the principle is concerned it does not make a particle of difference whether the straight fat or the fat plus two method is used so long

as the patrons are paid for the quality of milk they actually produce. The cheese industry stands to-day in need of payment by test in order that those who support it may be rewarded according to the contribution they make toward its support. There is only one argument in favor of payment according to quality and that is the argument of fairness. The cheese industry in Canada can never reach its most favorable development under unfair methods of payment for the raw material of manufacture. No other industry has ever been able to keep the confidence of all parties under unfairness and there is no reason for thinking that, with competition becoming keener, cheese making will prove an exception.

### UTILIZING THE WHEY.

The whey from cheese making contains on the average about .23 per cent. of fat, which is as much as is contained in over half a pound of cheese or a quarter of a pound of butter. A ton of whey will make on the average about 4 pounds of whey butter, leaving still between 85 and 90 pounds of whey for hog feeding that will contain about .03 per cent. of fat. During the last two or three years whey butter plants have been installed in many factories. There were, out of the 787 factories in Eastern Ontario in 1919, however, only 209 factories making whey butter and 183 shipping whey cream. A 100-ton factory will require about 2,000,000 pounds of milk and will have about 1,000 tons of whey during the season from which over \$2,000 additional revenue could be secured if butter were made and sold at 50 cents per pound. If the cream only is sold the revenue is likely to be in the neighborhood of \$500 to \$600 less, a difference which the average factory is rarely in a position to lose. Every small business must be conducted so as to get the most out of it if it is to succeed and, as mentioned above, cheese factories must of necessity be of relatively small size. It is the loose ends that need careful watching and if a factory is to hold its patrons, no source of revenue can go to waste.

What the value of the whey is for hog feeding no one seems able to determine to the satisfaction of anyone else. Various estimates ranging all the way from \$4 to \$8 per ton have been made to the writer by patrons of factories, but no one seems willing to place much reliance on his own estimate. Its value does, of course, depend upon circumstances, but it has a value nevertheless, and even the man who wants it but doesn't know what it is worth can put a value on it of some kind in his own mind. There is no doubt about the fact that it is valuable as a hog feed and patrons of factories hate to do without it. Many have told us that there is something about it that makes a pig do better and they want it if they are to keep on raising hogs. The relation of whey to farm practice through its connection with the live stock on the farm is a factor to be considered when cheese is under consideration as a market for milk. The demand for whey is a strong factor that will help to hold many patrons of cheese factories and to be able to use it promptly is an advantage that patrons should make use of. Pasteurization is a safeguard which the more progressive factories are providing, in order to lessen the risk of disease in hogs. The loss of a few hogs through infected whey may easily lessen the attraction of the cheese factory for any patron.

### GRADING A NECESSITY.

When we turn to the selling end of the cheese business we reach the point where inefficiency may destroy the beneficial effects of all the labor expended in producing clean milk, all the skill of the cheese maker in turning out a first-class product, and all the saving wrought by a complete utilization of by-products. No matter how scrupulously careful the methods of the producer or the maker, if good cheese does not command an adequate premium over inferior cheese, all the skilled effort and conscientious endeavor represented by the higher quality of the former will have been expended for nought. The successful farmer, who, by hard work and intelligent handling of his farm, is able to secure a yield of grain five bushels in excess of his neighbor, would not consider it fair if the market were to demand that this grain be sold at an average price per acre.



Elma Cheese Factory in Perth County, One of the Largest and Most Complete Co-operative Factories in Ontario.