

For unless the care and control is intelligent and thorough, the individual consumer must expect to suffer from and pay the penalty for the high cost of bacteria.

We are sometimes questioned as to the feasibility of using the count of bacteria in determining the hygienic quality of the milk. Total numbers of bacteria give us much information. Before we can fully interpret these numbers, however, we should know not only the total number of bacteria, but something of the varieties present, something of the conditions under which the milk has been produced and handled, the age of the milk, and the temperature at which that milk has been held since it was produced. If the information here intimated be taken into consideration, I am firmly convinced of the desirability of finding the count of bacteria for the purpose of interpreting the hygienic quality of milk.

Let us consider butter for a few moments. Some few months ago a large consignment of imported butter arrived in the City of Vancouver. This butter had been graded in the highest class, and rightly so. Deterioration had, however, set in, and I was asked to find, if possible, the cause of such. With my assistant, Mr. Vollum, I have been engaged upon the problem, and the data accumulated up to the present is sufficient to warrant us in saying that the deterioration is the result of the action of certain strains of bacteria. The butter is still, of course, marketable, but its value has decreased to the extent of several cents per pound. The manufacturer of this butter and the community at large have paid the price for the bacteria; and even on one car-load of butter the price thus paid is high. A few days ago the finest Prairie butter was selling at 73 cents and 72 cents per pound on the wholesale market. Dairy butter was listed at 60 cents per pound. This difference of 12 to 13 cents per pound is largely the result of failure to eliminate and control the bacterial population of the cream used for the making of the butter. The maker of the butter sold at 60 cents per pound is a victim of the high cost of bacteria.

Mr. President and gentlemen, just one word more. Those of us who for a longer or a shorter time have been engaged in an attempt to accumulate data relating to the hygienic qualities of milk have undoubtedly, in many different Provinces and in many different countries, found milk with a bacterial population of anything from a few thousands per cubic centimetre to many millions per cubic centimetre. Does it seem just that the man who produces a milk with a few thousand bacteria per c.c. should receive exactly the same price per pound of butter-fat for his milk as the man who produces and sells a milk with many millions per c.c.? Is it not largely for the man who sells milk plus bacteria that the expense of inspection is necessitated, and that the most expensive machinery is necessitated in order that the milk shall be purveyed to the public in a condition such that they may with safety consume the same? Is it not largely for such that cold storage must be insisted upon? Does it not seem that the time has come for the man who keeps out the bacteria to be paid for his care and management in so doing, just as he is paid for his capability, and faculty when it comes to a question of breeding in the butter-fat? Should not the man who produces a milk which by reason of its low bacterial population has a long period of usability be paid more per pound for butter-fat than the man who sends in milk having a limited period of usability?

Already the producer of milk is paid to breed in the butter-fat, and to keep out the bacteria.

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