

Cheese Department

Makers are invited to send contributions to this department, to ask questions on matters relating to cheesemaking and to suggest subjects for discussion. Send your letters to The Cheese Maker's Department.

Peterboro Cheese Board

The Peterboro Cheese Board met on June 3rd, when 2,643 cheese were boarded. The buyers present were Messrs. Watkin, Fitzgerald, Gillespie, Jones, Kerr, Weir, Gunn and Langlois, Morton and Cook. Mr. G. A. Gillespie secured the first option on the cheese, bidding 10½ cents and secured 1,054 cheese. Mr. Watkin followed and bought 501 at 11½-16 cents; Mr. Kerr, 888 at 10½ cents; Mr. Jones, 115 at 10½ cents and Mr. Cook, 50 at 10½ cents.

Considerable discussion was raised on the statement of Chief Instructor Publow that a large quantity of green cheese was being shipped from Eastern Ontario, which, according to the instructor meant a loss of one cent a pound on all cheese that was too green. Mr. Watkin, an old and experienced buyer of Eastern Ontario, stated that Mr. Publow did not refer so much to the Peterboro district but that the practice was prevalent in districts around Brockville and Belleville. Around these latter places, there are no inspectors at the factory and therefore it is as much the fault of the buyers as it is of the proprietors and makers. It was stated that in some factories the inspectors visited, there was no cheese at all to be found on the shelves, and in many cases, cheese that were only two days old. Mr. Kiddell, the president, urged the makers of Peterboro

district to not ship their cheese at too green a state and thus injure their reputation on the Old Country market.

On account of this complaint, a motion was made that there should be a meeting of this board every three weeks but the motion was defeated. Many makers who did not have first class cool curing rooms stated that keeping cheese for three weeks during the hot summer months would decrease its value instead of increasing it. It was then decided to meet two weeks from the date of this meeting.

Another Criticism

Ed. The Dairyman and Farming World.—It is always easier to criticize than to write a report, and it is therefore rather pleasant to defend some opinions expressed by the Director of the Provincial Laboratory at St. Hyacinthe.

Before entering on special points, there is one remark to be made on the criticism against the Report as a whole, namely, to ask for whose benefit this criticism is written? Is it written from a scientific standpoint? Certainly not. Is it then written in a popular way? By no means. Well, for whom is it written? Is it not written in favor of those who have to sell Rennet that smells bad? I think so.—J. Van der Smell, St. Hyacinthe, Quebec.

Criticism of Director's Report Provincial Laboratory, Que

(Continued from May 27)

Another remark may be made about Table VII on cheese analysis. The Director gives there the number of bacteria per gramme and per pound of cheese. What the latter figures are good for is not quite clear. In the scientific world it is not the habit to work with the number of bacteria in pounds per article, and there is no practical use in giving the number of bacteria in a pound of cheese. What the maker could value is some information on the presence or absence of certain injurious bacteria and their relative number.

We note that Koch plates were employed by the Director in some of his experiments. These plates are now-days very seldom used, because the chances of mould infection are much greater with them than with the more commonly used Petri dishes. A few moulds on a Koch plate are the least indication that they originate from the cheese.

Finally, we must make a few observations regarding the experiments made with the UlaX milk filter.

It is generally known that the UlaX filter was introduced to replace the

cheese cloth filters, still used for filtering milk. They are not used to separate the bacteria from the milk, but to separate from the milk, hairs, dust, manure and other stable particles. The UlaX filter is made of a thin layer of cotton between two wire gauze disks, and the great advantage of this filter is, that it can be renewed by placing a new cotton disk between the wire plates. This arrangement is of course much too simple to expect any decrease in bacteria, and as already said, it was never meant to do so. The Director shows us in his report on page 365 that the UlaX filter has no influence on pure milk (in the bacteriological respect), and that in other cases the results on the bacteria are very small, and comes then to the conclusion that:

1. "The action of the UlaX filters depends chiefly on the nature of the milk filtered."
2. "That he cannot draw serious conclusions as for the solid and liquid residue retained in the cotton, for the following reasons:

(a) The disks of cotton may be contaminated during the trip, and amid the surroundings in which they have sojourned."

This sounds peculiar. The surroundings of the cotton are the box in which it was packed, so that the contamination will not be so enormous, especially as there are very few bacteria like to eat dry cotton.

"(b) The quality of filtered milk is unknown, and therefore does not the number of colonies per cubic centimetre in the remains of the filter signify much?"

When there are few bacteria in the cotton, then the conclusion may be drawn that the bacteria go through the filter.

Table XIX, gives the number of bacteria before and after filtering with an UlaX filter. In the first test the Director finds the same number of bacteria before and after filtering and besides that a large number of bacteria in the filter, and writes about that fact on page 365: "The large quantity of colonies numbered per cubic centimetre of residue contained by the cotton of the filter cannot be explained except by the presence of germs in the cotton of the filter itself, which I did not sterilize. This cotton was certainly contaminated by the surroundings in which it had been kept (kept was not printed).

There the Director shows himself unconscious of the fact which is already known for years, namely, that by filtering, centrifuging, etc., lumps of bacteria are broken up, so that after such a treatment the number of bacteria found may be greater than before.

If the Director will spare a few minutes to read "Cleaning Milk by the Use of a Gravel Filter, (The Bacterial Contamination of Milk and its control by F. C. Harrison, translation of the Canadian Institute, Vol. 7), he will find an experiment done by Dunbar and Kister, 1899, who filtered 22 samples of milk through sterilized gravel filters, in 17 of which the number of bacteria after filtration was increased.

The average of five samples was: 450,000 before and 62,000 after filtration, and the average of the other seventeen, 1,300,000 before, 5,600,000 bacteria per c. c. c. after filtration. Backhaus reported: "That these filters have no effect in reducing the number of bacteria in the filtered milk. The mechanical separation is good, all coarse particles such as hair, straw, manure, etc., are arrested, but the bacteria are washed out of the manure and the milk contains more bacteria than before filtration."

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facts, the results of the Director's experiments are easily interpreted.

Whether there is more in this report open for discussion, the writer of this criticism does not know, because he only took up the points in which he himself was interested.

The writer would not take the place of the Provincial Official Laboratory, but he is of opinion that nobody has the right to publish any statement which may be injurious to any person's reputation, without being also absolutely certain of his experimental data, and the conclusions drawn from them.

J. Van der Leek, Macdonald College, Quebec

A dairy school has been established in New Zealand. This is the first institution of its kind in Australasia. This school will not take the place of the technical schools of which there are a number in that colony. The school will be divided into two parts—scientific and instructional. What the University is to the medical, law, or clerical student, this dairy school will be to the farmer's son.

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