

that neither he nor his vicious teaching is wanted. He will soon find his level, which is at the foot of the procession that is making for progress and prosperity.

Creamery Department

Butter makers are invited to send contributions to this department, to ask questions on matters relating to butter making, to suggest subjects for discussion. Address letters to Creamery Department.

Errors in Cream Testing*

J. F. Singleton, Kingston, Ont.

Many patrons of creameries are either dissatisfied with the business, or indifferent to it. The dissatisfaction is largely over the testing of the cream and this is a problem which creamerymen must consider before long. In fact the trouble has become quite acute in some sections and one prominent creameryman has said that this is the most difficult problem with which creamerymen have to deal.

There is no uniformity among the different creameries in methods of testing. Some use the 17.6 c.c. pipette and do not rinse it after taking the sample; others rinse it after taking the sample and add the rinse water to the test bottle; others use the 18 c.c. pipette either rinsed or not. None are using the scales to weigh the sample. The difference between using a 17.6 c.c. pipette not rinsed and an 18 c.c. pipette rinsed, with the rinse water added to the test bottle, will make a marked difference in the reading of the same sample of cream.

TWO EVILS
This lack of uniformity, and this inaccuracy in testing has two evils. First, a correct comparison cannot be made between the price per pound of fat paid at different creameries, and secondly, any method of testing by means of a pipette will not do justice to the different patrons.

The creamery using the 17.6 c.c. pipette and not rinsing it does not credit the patrons with a pound of fat. The deliverer, consequently a higher over-run is obtained and an abnormally and fictitiously high average price per pound of fat is paid. The neighboring creamery may be using an 18 c.c. pipette and rinsing it after taking the sample. The over-run is not so high, neither is the price per pound of fat, but the patrons get as much money, other things being equal, in that they are credited with more pounds of fat. This causes dissatisfaction among patrons of both creameries, in the first creamery over the lowness of the test, and in the second creamery over the lowness of the price.

TEST BASED ON WEIGHTS

The Babcock test is based on weights and it is simply for convenience that we use a pipette in testing milk. Milk is fairly constant in weight so we can use the pipette in testing milk and get accurate results. But with cream we have an entirely different proposition, for it may vary in fat content from 11 per cent. to 60 per cent. or even higher. As fat is the lightest constituent of cream, the more fat cream contains the less will a given volume of cream weigh. This explains the inaccuracy of any pipette in testing cream. An 18 c.c. pipette rinsed and the rinse water added to the test bottle, will with a 27 per cent. cream deliver the correct weight into the test bottle. As the percentage of fat increases the sample becomes lighter and the test is too low, while as the percentage of fat decreases, the sample becomes too heavy, giving too high a test. This simply means the test which is used in doing the testing, the man sending rich cream does not get paid for all the fat he sends, while the

man sending cream containing less fat than 27 per cent. will get paid for more fat than he sends, and the greater the extremes the greater will be the error be.

PREMIUM ON THIN CREAM

The patron is advised by creamery men and instructors to get the test up somewhere between 30 per cent. and 35 per cent., and this has many advantages, yet the testing is done in such a way as to put a premium on low testing cream. The remedy for this is to use the scales and weigh each sample into the test bottle and each patron will get paid for what he sends. The use of the scales in cream testing will do away with much of the friction with and dissatisfaction among creamery patrons.

The sampling is usually quite accurately done by the hauler, but the samples do not in some cases receive the attention they should at the creamery. The samples should be warmed up occasionally and the preservative mixed with the fresh cream. They should also be kept well corked for if left un-corked, moisture evaporates, leaving the test too high. This has no doubt been responsible for some low over-runs.

Export Cream to United States

J. A. Buddick, Dairy Commissioner, Ottawa

The export of cream to the United States, made possible by the reduction of the duty to five cents a gallon under the new tariff as against the former duty of two cents a pound, deserves special mention, for here we have a real menace to our cheese trade as far as it affects the volume of the exports. Every gallon of cream that is exported, under present conditions in our export dairy trade, practically means just that much less cheese for export, and the indications are that this cream trade may grow to large proportions. The figures are available only up to the end of November, but they show a surprisingly rapid growth.

Month by month they are as follows:—August, 16,509 lbs.; September, 121,692 lbs.; October, 290,929 lbs.; November, 700,599 lbs.; total 1,229,703 lbs.

It seems quite probable that the total shipments up to the end of the year will not be less than 2,000,000 pounds of cream. As this cream is made very rich and averages over 40 per cent. fat, it represents somewhere about 1,000,000 pounds of butter. How long this may continue I do not know. Well informed people in the United States, with whom I have discussed the matter, say the tariff will not be changed during the term of

*Extract from an address delivered at the E.O.D.A. at Belleville last week.



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the present administration. It must be dealt with by Congress, and I understand that there is great reluctance to having the tariff question opened up.

I do not see that the producers need worry over the matter so long as they receive good prices for the cream, but there is one feature of this development which is to be regretted. I refer to the closing of cheese factories and creameries by the purchase of cream direct from the farmers. The owners of these factories will lose both their business and their investment and when the time comes, as it most likely will, sooner or later, the disorganization that has occurred will be awkward.

A Successful Year

The Sidney Cheese and Butter Factory, Limited, has closed a very successful year. Milk received was 3,198,800 lbs., the cheese made was 290,800 lbs.,—27.86 per standard yield \$10.90. The company is now putting in cold storage. They pasteurize the whey. With these added improvements, the factory stands second to none in the Province.

Bay Side paid \$27.60 and Acme, another factory in the west, we understand paid \$27.70. These three factories make up the milk of the three front concessions of Sidney township, Hastings Co., Ont.—J.K.

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PETERBORO, ONT.

*Extract from an address delivered at the E.O.D.A. Convention in Belleville last week.