Creamery Department

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

A Circular to Patrons

Cream grading is no longer an experiment in western Canada. In a circular recently sent to all of his patrons, Mr. P. Pallesen, manager and proprietor of the Calgary Central Creamery, talks to his patrons as follows about his ideas on grading:

"This year I am going to grade the cream closer than ever. The grading system is not an experiment but a strictly business proposition which has worked out to the advantage of both the farmer and the creamery man. I can get the highest price only for strictly Number One cream. If you don't want to take care of your cream I don't want it; let the other fellow have it. This year I shall be able to pay an extra price right along for sweet cream for city delivery."

Mr. Pallesen expects his patrons to take care of his cream but he makes it worth their while. In the same circular he quotes the prices paid in each month of 1911 for three grades of cream—Extra, No. 1 and No. 2. There is a premium of one to two cents between the prices paid for extra and No. 1, and of two cents for cream of No. 1 grade over cream of No. 2 grade.

A BOOST FOR WINTER DAIRYING

All creamery men would like to have their patrons go in more extensively for winter dairying. Here are a few of the arguments that Mr. Pallesen uses in this same circular to induce his patrons to go in more extensively for winter dairying:

"1. You will receive the highest prices.

"2. You will have a regular income all the year.

"3. You will keep up the fertility of your farm.

"4. You will have better time to milk.

"5. You will have better stock.

"6. You can keep your hired man the year round."

Pretty nearly covers the whole thing, doesn't it. The circular such as this sent out to all the patrons is bound to have a good educational influence. But Mr. Pallesen does not ask his patrons to listen to him all the time. On the back of the circular are extracts from several letters that he has received from satisfied patrons telling him how well they are pleased with the service rendered by the Calgary Central Creamery. This circular idea is capable of wide application.

Make Scales Compulsory

Alex. MacLachlan, Norfolk Co., Ont.

Why should these things exist? Why not make it compulsory to use scales and put every one on the test sheet where they properly belong, and give every patron the proper amount of butter fat contained in his cream. With the pipette more overrun is obtained, and in this every patron shares alike. But why have so much overrun? Is it not better to give the proper test and not have so much overrun? If all creamery men would adopt the scales for testing I think it would do away with a great deal of this dissatisfaction which we hear of from patrons, and particularly the ones who are producing rich cream.

Let us get away from this pipette method, which has been weighed in the balance and found wanting. Get the method that will do justice to every one. The pipette is as much behind the scales for fairness to patrons as the oil test is behind the Babcock or for getting the quality of cream as the individual can as compared with the tank system.

Pasteurization and Starter

Geo. H. Barr, Chief Dairy Div., Ottawa

(Continued from last week)

I am aware that the quality of the cream at the Renfrew Creamery is better than at many cream gathering creameries, and, for that reason, we were perhaps not able to get as bad cream to experiment with as some buttermakers handle. Some of it was, however, as bad, I think, as anyone would care to receive. On three occasions, we selected the worst flavored cream delivered to the creamery.

The flavor on the different lots selected might be classed as stale cream, bitter, cowy, rancid. The average temperature of the cream when received was 67 degrees, the acidity .54 per cent and the fat 28.16 per cent. The following table shows the average score on the butter from different methods of treating this cream at the creamery:

TABLE IV.—AVERAGE SCORE ON THE FLAVOR OF THE BUTTER FROM TAINTED, SOUR CREAM, CHURNED MAY 18th, JUNE 29th AND JULY 12th.

Age of	Raw	Raw Cream	Pasteurized	Pasteurized Cream
Butter	Cream	10 per cent Starter	Cream	10 per cent Starter
2 weeks	40.50	41.56	42.06	42.50
Nov. 1st	36.12	37.44	38.88	39.15
Difference	4.38	4.22	3.20	3.34
	Average of all the Scores.			
	38.75	39.81	40.73	41.10

These figures show that there is a decided advantage in pasteurizing tainted and sour cream, and a further advantage in using a starter in the pasteurized cream, as the pasteurized and starter cream butter is almost as good in flavor on November 1st as the raw cream butter was when two weeks old. None of the raw cream butter scored above 36.5 points in flavor on November 1st. None of the pasteurized lots scored under 38.5 on the same date. One lot from pasteurized cream, with starter added, scored 40 points on November 1st.

YIELD OF BUTTER

In making a comparison of the yield of butter, the same cream and exactly the same weight was used in the two lots compared. The work was done as carefully as possible, and the results should be fairly reliable.

In 18 churnings each of cream without starter and cream with 10 per cent starter added, there was practically no difference in the yield of butter. In the same number of churnings of pasteurized and unpasteurized cream, the loss in pasteurizing was .78 per cent. In nine churnings each of pasteurized cream with and without starter, the loss in the lots with 10 per cent starter added was 1.04 per cent.

In four churnings each of pasteurized sweet and sour cream (.27 per cent and .51 per cent acid) the loss in pasteurizing sour cream was 1.01 per cent.

MOISTURE IN THE BUTTER

The following table shows the average per cent moisture in cream treated in four different ways, nine churnings in each lot:

TABLE V.—MOISTURE IN THE BUTTER.

Raw Cream	Raw Cream 10 per cent Starter	Pasteurized Cream	Pasteurized Cream 10 per cent Starter
13.94 per cent	13.80 per cent	14.32 per cent	14.10 per cent

Why Test Daily?

By F. Odell

When a creamery is taking composite samples with a dipper that takes the same amount of cream at every delivery, regardless of the amount or thickness of the cream, and then tests these composite samples every two weeks or once a month, does it not show lack of good business management?

You may ask why. The answer would be: In the first place, the samples taken are wrong. Where a creamery takes a sample of cream with a dipper the sample taken each time is the same amount, regardless of the large or small amount delivered, and regardless of the thinness or thickness of the cream. Then, your sample is wrong; and does the buttermaker know for a certainty whether the patron receives pay for the correct amount of butter-fat he delivers?

In the second place, these composite samples are usually kept in tin-top sample jars, and in mostly every case they are kept two weeks or one month on a rack or shelf in the receiving room. The evaporation where samples are kept in this manner is very great. This fact is due to the escape of moisture from the sample. After the samples are taken they must receive proper care until they are tested. The reliability of the tests depends just as much on the care of the samples as on the proper way of sampling.

CONDITIONS THAT ARE WRONG

What do we find at creameries where composite samples are taken? In warm weather the sample jars all mold on the inside. In winter, during the extreme cold weather, samples freeze solid. In either case how is the sample in question going to give accurate results?

Where sampling is done in this manner it is a question whether the buttermaker can acquire his proper amount of overrun. One per cent evaporation means about three per cent loss in the overrun. Two per cent evaporation would mean about six per cent loss. Experiment stations have shown that where samples are kept in tin-top jars in the receiving room, where they are exposed to the air and high temperatures, they will evaporate from two to six per cent.

We believe the buttermaker should know what he is doing each and every day. He should know how many pounds of butter-fat he receives and how many pounds of butter he makes from it. The dairy industry is developing more and more each year, and the rising scale points to the time when it is necessary for the buttermaker to do these things—as necessary as for a bank to know its daily transactions. Is not the creamery business of as much importance as any other business? It would seem that daily testing is the most reliable method to follow.—Creamery Journal.

The first rule in the handling of dairy products is cleanliness; the next is coolness.