

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.

Canadian Cream for the United States

The mistake on the part of the framers of the Payne tariff bill, as noted in these columns recently, is resulting in a nice little harvest for many dairy farmers, especially of Eastern Canada, who reside near the border. Had present conditions created by this slip existed from the commencement of the dairy season this year, it is probable that some astonishing figures would have confronted the statistician at the close of the year. The duty of five cents a pound, as originally intended, would have been absolutely prohibitive but as it is now under the provisions of the Payne tariff bill there is a duty of only five cents a gallon on Canadian cream going into the United States.

During the past two months, dairymen in the Brockville district and many throughout the Eastern Townships, have been shipping a large quantity of their cream across the border. American buyers, it is reported, are coming over and buying the cream from the farmers. The neighboring states need the cream this year for their much experienced severe drought, and milk production has been at a minimum.

In order to appreciate just what this condition of things means to the producers concerned, it is only necessary to point out that they would need to sell butter at 32 cents a pound in order to make the same profit that they are making from selling their cream to the Americans—the average price of butter at the present time is about 25 cents.

Creamery Starters, and How to Use Them*

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We all know that if we should go out to build a building the first thing we look for is good material. It is very essential that we should have it. Just as essential as it is to have good material for building is it essential to have good material in order to be a successful buttermaker. We must produce the right kind of goods. I think if we have a good raw material and a good starter we will be successful. We have two kinds of starters. We have a commercial starter and a natural starter. The natural starter I do not care to talk about simply because I believe it takes too much time to prepare it. Furthermore, a commercial price and I believe it is always reliable.

PREPARING THE STARTERS

I will try to explain how I prepare my starters and how I use them. First it is very important that we should have the best milk we possibly can get. We don't know what kind of bacteria there is in that milk and the best buttermaker is not in shape to determine that. We should therefore try to select the best milk we can possibly get. The way I have been in the habit of selecting my milk is in this manner. I will not select from one herd, but from several, and I place that into one-quart cans—glass jars. The first step after I have selected the best milk is to sterilize it. I do this by pasteurizing it. I later put back my milk and pasteurize it—that is for the starter. I then place it into a little cabinet and attach the cream for not less than one hour three days in succession. By doing this we are sure that we have killed all the

bacteria. I cool that milk down to a temperature of about 80 or 85 degrees and into that I put my culture. Now at 85 degrees we can be sure that it will be reasonably right in 24 hours or perhaps less, if we use the proper temperature. Temperature is one of the most important parts in making a starter. You will have to have some way of holding it at a temperature of from 80 to 85 degrees.

Another important thing is that the jars must be sterilized. You can easily sterilize these jars in this little cabinet and you are not at any extra expense.

NOT TO BE MEDDLED WITH

After you have your starter set for the first day at a temperature of 85 degrees and you have kept it there for 24 hours the starter is all right. I have seen many buttermakers examine the starter and test it and claim it is not so good. Remember that that is not so. Simply go along with your work. You have your first starter, so don't mind what you have in your can. That is nice and clean including yourself. Don't go along with your thermometer and put it in there thinking you are doing the right thing. The thermometer can be nicely sterilized in that same oven. Every day you take out a bottle but always put in as many as you take out, so doing you will have a good supply of pure milk for mother starter. Continue this for several days. I always carry from four to six mother starters, because if I should happen to lose my big starter I would have something to fall back on. When you have more than one mother starter I have found it a good plan to set them with a little more in one bottle than in the other.

After you have taken your milk you are up against a proposition that is not easy to overcome. It requires a larger amount of milk, but nevertheless, we will have to do the best we can, but never make anything but what is reasonably good. That, of course, we do not sterilize, but we pasteurize it at about 190°. Some claim that 160° is enough, but my method is to use a temperature of 190 and if I have plenty of starter I can always re-pasteurize. If not, I pasteurize just once. I use from two to four per cent. and find that it will ripen my starter in a reasonable length of time. I find that I can ripen my starter 12 hours it is better than 18. I try to ripen as quickly as possible. I consider a starter at its best when it contains about .7 of one per cent. acidity. I think every creamery ought to have an acid test, especially if the buttermaker is not a good judge of starters. A starter to be good should always be clean, and it should be nice and glossy.

USE A SKIM-MILK STARTER

Which is the better, a whole-milk or a skim-milk starter? For me, I will take the skim-milk starter, for the reason that I have I can tell more about it. I know that a whole-milk starter will show up a little better than a skim-milk starter. I have always advocated a

In regard to the use of starters, there are different ways, of course. That would depend whether you use it for milk or gathered cream. If you use it for gathered cream I would have a little more in it to try and see if I could cover up some of the bad flavors. Sometimes I add the starter to the ripener before I put in the cream, and then again I put the cream in first, depending upon the material. I have tried to churn right after I added the starter and also to churn the next day but I have come to the conclusion that I prefer the cream to ripen about three or four hours. I don't know as it has so much to do with the flavor, but I want to get a good body. After I have my butter of good quality I have for the last couple of years washed my butter in starter. After my butter has reached the granular



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form I add from 10 to 20 gallons of starter made out of the skim-milk to 1,000 pounds of butter. I have had good results, by so doing. I have made experiments and found that this butter after it had been stored six months scored two points more than the other butter where the starter was put in before.

If you want to be a successful buttermaker, by all means be particular about your work along the starter lines. You can not be too particular. I don't care where it is, whether in selecting the milk, washing utensils—be absolutely clean. If you don't you will not succeed.

Inspecting New Zealand Butter

Complaints have been made in Great Britain in regard to excessive moisture in New Zealand butter. These have been taken seriously by the Government of that dominion says the weekly report of Trade and Commerce, and the New Zealand produce Commissioner, Mr. H. C. Cameron, has issued the following information regarding the steps which the New Zealand Government is taking to deal with the matter:

"All butter sent in for export to Great Britain during the coming season will be subject to a rigid inspection by the officers of the dairy division of the Department of Agriculture stationed at each port of shipment. A large number of samples will be taken for analysis daily, and in all cases where the legal limit of moisture is exceeded, the offender will be prosecuted. In addition to this, the inspectors in butter making, who visit practically every creamery in the Dominion a number of times each season, will pay special attention to the question of moisture in butter. They will also look closely into the methods of manufacture adopted in regard to buttermaking, and endeavor to in-

duce the makers to retain not more than 12 per cent. to 13 per cent. of water in the finished article. These officers will carry a moisture testing outfit with them on their rounds. In the past season, the question of moisture in butter for the coming year will receive more than usual attention. Some extra men will be employed in checking the work in the dairy companies in this respect, in order to safeguard the interest of the purchasers of New Zealand butter, and to protect the industry generally."

The Canadian trade and the various authorities concerned will observe all possible efforts are being made by their antipodean competitors to retain their enviable position which they have won in this market. The moral is obvious.

B. C. Creameries.—The Eden Bank Creamery of British Columbia produced in 1908, 224,412 pounds of butter, which was sold at an average price of 29.4 cents. Net cash returns to the patrons, \$28,738.48. In 1902 this creamery turned out 118,590 pounds at the average price for that year being 25.14 cents, the patrons receiving \$27,130. It will be noticed that while the output increased in the seven years, nearly 100 per cent., the price received shows an advance of four cents a pound, making the net return to the farmers more than double what it was in the former year. In 1907, a store was started in connection with the creamery, which made a turnover in 1908, its second year of \$28,455.43. The Chillum Creek creamery first opened in 1902, producing in that year 70,000 pounds of butter. In 1908 they turned out 264,903 pounds, giving a net return to patrons of \$65,881.50, making a total for the two creameries for last year of 459,315 pounds and a cash return to the farmers of \$121,646.91.

*An address before the recent Butter Makers' Convention in Milwaukee.