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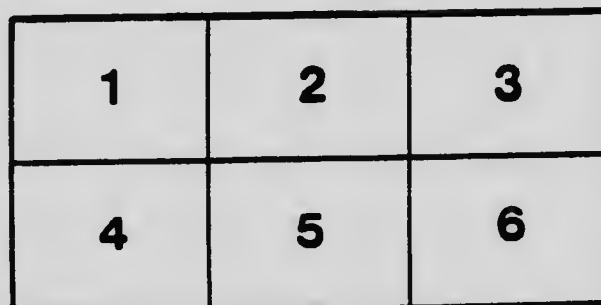
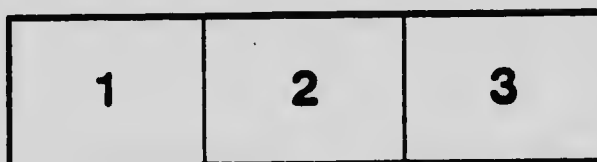
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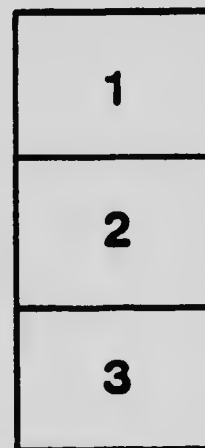
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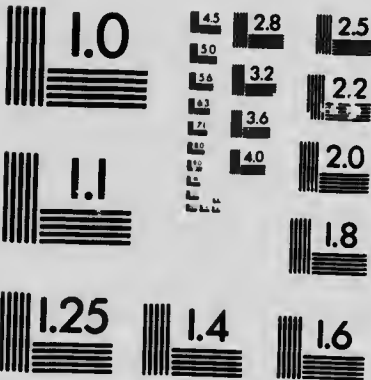
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DEPARTMENT OF AGRICULTURE
DAIRY AND COLD STORAGE COMMISSIONER'S BRANCH
OTTAWA, CANADA

CREAM CHEESE

BY

MISS G. BAGNALL, N.D.D.

Instructor in Dairying, Macdonald College, P.Q.

BULLETIN No. 30

Dairy and Cold Storage Commissioner's Series

Published by direction of the Hon. SYDNEY A. FISHER, Minister of Agriculture, Ottawa, Ont

7551—1

JULY, 1911

LETTER OF TRANSMITTAL.

OTTAWA, July 8, 1911.

To the Honourable

The Minister of Agriculture.

SIR,—Owing to the number of inquiries received lately for information on the subject of 'soft cheese,' this manuscript has been prepared, at my request, by Miss Bagnall, in order to enable us to give some instruction on the making of a cream cheese which has become very popular at Macdonald College.

I beg to recommend that it be printed for general distribution as Bulletin No. 30 of the Dairy and Cold Storage series.

I have the honour to be, sir,

Your obedient servant.

J. A. RUDDICK,
Dairy and Cold Storage Commissioner.

ILLUSTRATIONS.

FIG. 1 UTENSILS—

- | | | |
|--------------------|------------------------------------|-------------------------|
| 1. Draining table. | 7. Bow. | 12. Rennet Extract. |
| 2. String. | 8. Huckakack towel. | 13. Pail. |
| 3. Stick. | 9. Salt. | 14. Muslin. |
| 4. Boards. | 10. Thermometer & cup. | 15. Spoon. |
| 5. Brick. | 11. Measuring glass for
rennet. | 16. Cream Cheese Mould. |
| 6. Skimmer. | | |

FIG. 2. Dipping the curd.

FIG. 3. Draining the curd.

FIG. 4. Changing the cloths.

FIG. 5. Pressing the curd.

FIGS. 6, 7 & 8. Moulding the cheese.



FIG. 1. UTENSILS—(1) Draining table, (2) String, (3) Stick, (4) Boards, (5) Brick, (6) Skimmer, (7) Bowl, (8) Huckleback towel, (9) Salt, (10) Thermometer & Cup, (11) Measuring glass for rennet, (12) Rennet Extract, (13) Pail, (14) Mould in Groove, (15) Groove, (16) Cheese Cloth.

FIG. 2. Dipping the card.
FIG. 3. Drawing the card.



6

5

7

8

FIG. 5. Pressing the card.

FIGS. 6, 7 & 8. Moulding the card.

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CREAM CHEESE.

By MISS G. BAGNALL, N.D.D., Instructor in Dairying. Macdonald College. P.Q.

INTRODUCTION.

The process of manufacturing this particular variety of cream cheese is inexpensive and simple, and the cheese is so profitable that farmers should encourage their wives and daughters to follow these instructions, so as to be able to furnish their tables with a good wholesome and nutritious article of diet. If made from fairly rich cream, it will contain from 40 to 50 per cent of butter-fat. Butter-fat is more easily digested than other fats, and should, therefore, prove most beneficial to invalids. With or without butter it is most palatable, and makes delicious sandwiches. During the three years that this cheese has been made at Macdonald College, the demand has increased from four dozen to sixty dozen per month.

WHY ITS MAKING SHOULD BE ENCOURAGED.

1. It is profitable. The cream from 100 pounds of average milk will make twenty-five cream cheese, which retail at 15 cents each, or equal to \$3.75 per 100 pounds of milk.
2. The return is quick, the cheese being marketable in three days, thus saving the expense of storage.
3. The initial cost for equipment is very small. A cream cheese mould, which may be bought for fifty cents, and a few yards of butter muslin are about the only extra needs in a well equipped farm house.
4. In a clean, airy room, with an even temperature, it is almost impossible to go wrong, and thus have a loss.
5. The demand is greatly on the increase, and as soon as it becomes more universally known it will be extensive.

ACCOMMODATION.

An airy and easily cleaned room with an even temperature that can be maintained between 60-65° F. is necessary. The influence of heat and cold on the texture, flavour and yield of cheese is very important. If the temperature of the room is too high, the yield will not be so large, and the quality of the cheese will be impoverished owing to a loss of fat, while on the other hand, should the temperature fall much below 60° F. the draining process will be retarded, resulting in a bitter flavour in the cheese, instead of the clean, nutty flavour that is desirable.

THE CREAM.

Cream containing 15 per cent butter-fat is sufficiently rich for this cheese. It may be taken from the separator at this thickness, or else richer cream may be brought to the above fat content by adding skim-milk. As a rule, four gallons of milk, testing 3.7 per cent butter-fat, will be found to give one gallon of cream containing 15 per cent butter-fat.

REQUIREMENTS.

Starter.

A little fresh buttermilk or clean sour skim-milk, will make a good starter.

Rennet.

Rennet may be used in either the extract or tablet form. Where only small quantities are used, the tablets are best, as they are more easily obtained from most drug stores. Rather less should be used than is recommended in the directions for junket, as for this cheese a soft curd is wanted, will take from two or three hours to coagulate. Rennet tablets may be procured from most drug stores.

Salt.

Pure dairy salt, which will dissolve readily.

Vessels to Hold Cream.

Ordinary white enamel pails, holding from two to three gallons each are suitable for holding the cream; white enamel bowls, as shown in Fig. 1, are of the most convenient shape for holding the cloths, while ladling the curd.

Thermometer.

A thermometer is an absolute necessity where uniformity in cheese-making is required. Those made of glass only are best.

Draining Cloths.

Either huckaback, or fine linen towels, about 30 inches square, should be used. A texture, not too coarse nor too fine, is necessary to allow of easy drainage without loss of fat.

Measuring Glass for Rennet.

When rennet extract is used, it is well to invest in a small drachm glass for measuring the rennet. These glasses can be got from any chemist, graded to show the number of drops. They cost 25 cents each.

Draining Table.

Either a table, or sink with a slope, is required, from which the whey can readily escape while the cheese is pressing between boards. (Fig. 5.)

Mould.

A cream cheese mould, which may be round, square or oblong gives the cheese a more uniform appearance, and hence more marketable. Should the cheese be required for the home table, it can be made up into balls with the butter paddles.

Muslin.

Ordinary white butter muslin. One yard muslin, 36 inches wide, will cut into 49 pieces, each 5 inches square, which is the correct size for the round cream cheese mould.

Skimmer.

A perforated skimmer is necessary for ladling the curd from the pails into the cloths. (Fig. 2.)

Paper and Packages.

Grease proof parchment paper will be required to wrap the cheese in if it is to be sent to market. It can be obtained from any dairy supply house. Cardboard packages can be had from any of the folding box manufacturers, and cost from three to five dollars per thousand.

Age for Marketing.

Cream cheese is best eaten fresh. Its weight being four ounces only, it will naturally dry up very easily. They should not be sold over a week old, and they should be on the market in three days from the day of starting their manufacture.

PROCESS OF MAKING.

Requirements for ten cheese:—

- One gallon cream (15 per cent butter-fat).
- One tablespoonful of starter or buttermilk.
- Twenty drops of rennet extract, or equivalent in tablets.
- Dairy salt.
- Thermometer.
- A pail, bowl, skimmer and spoon.
- Two huckaback towels and some string.
- Cream cheese mould and some muslin.

Method.

1. Put cream and starter into a clean vessel and mix.
2. Get the temperature between 80° and 84° F.
3. Dilute the rennet extract with five times its bulk of water, in order to facilitate mixing. Add it to the cream, stirring gently and thoroughly for two minutes.
4. Cover with a cloth to retain the heat, and let it stand for two or three hours, until a nice, soft curd is formed.
5. Spread one of the cloths in the bowl, then with the skimmer gently ladle the curd from the pail into it, being careful to take thin slices, and to break it as little as possible. (Fig. 2.)
6. Gather up the cloth and tie with a string, without crushing the curd, then hang it up to drain on a stick placed between two chairs (Fig. 3), or in some other convenient position, with the bowl placed underneath to receive the whey. Let it drain from 12 to 24 hours.
7. When sufficiently drained, turn the curd into a clean cloth (Fig. 4), sprinkle with salt to taste, and knead in the cloth to thoroughly mix the salt.
8. Then fold the cloth neatly over the cheese, and place between two boards to press, with a brick on top (Fig. 5), and leave for a few hours or until the cheese is of the consistency of newly churned butter; it should, however, be less sticky, and of a more mealy texture than butter.
9. Cover the lid of the mould with a piece of muslin, and place another piece of muslin (6-inch square) in the mould. Put four ounces of the cream cheese curd into the mould. Put the lid on the mould and press with the hands; by this means the curd takes the form of the mould. Fold the ends of muslin over the curd and press again, when the cheese may be taken from the mould and wrapped in parchment butter paper.

Weight of each cheese = 4 ounces.
Retail price - - - = 15 cents.

LIST OF PUBLICATIONS

OF THE

DAIRY AND COLD STORAGE COMMISSIONER'S SERIES.

REPORTS.

1906	Report of the Dairy Commissioner, January, 1905, to March, 1906.
1907	Report of the Dairy and Cold Storage Commissioner, 1907.
1908	Report of the Dairy and Cold Storage Commissioner, 1908.
1909	Report of the Dairy and Cold Storage Commissioner, 1909.
1910	Report of the Dairy and Cold Storage Commissioner, 1910.

BULLETINS.

Date Issued.	No.	Title.
1905	1	List of Some British Importers of Farm Products.
1905	*2	Care of Milk for Cheese Factories. { Superseded by Bulletin
1905	*3	Care of Milk for Creameries. } No. 22.
1905	*4	Some Phases of Dairying in Denmark.
1905	*5	Improvement of Dairy Herds.
1905	6	Chemical Investigations Relating to Dairying in 1904.
1905	7	List of Exporters of Some Canadian Products.
1906	8	Some of the Factors that Control the Water Content of Butter.
1906	*9	Instructions for Testing Individual Cows, etc.
1906	10	Creamery Cold Storage.
1906	11	The Inspection and Sale Act, Part IX, as amended in 1907. (The Fruit Marks Act and Fruit Packages.) Revised Edition.
1906	12	Cow Testing Associations, with Some Notes on the Sampling and Testing of Milk.
1907	13	Sweet-Cream Butter.
1907	14	Apparatus for the Determination of Fat and Water in Butter.
1907	†15	Gathered Cream for Buttermaking.
1907	*16	Subsidies for Cold Storage Warehouses. (Superseded by Bulletin No. 23.)
1907	17	Buttermaking on the Farm.
1907	*18	Co-operation in the Marketing of Apples.
1907	19	The Packing of Apples in Barrels and Boxes.
1907	†20	The Use of Ice on the Farm.
1907	*21	Report of the Cow Testing Associations.
1909	†22	The Cooling of Milk for Cheesemaking.
1910	23	Cold Storage and the Cold Storage Act.
1910	24	Report on Some Trial Shipments of Cold Storage Apples.
1910	25	Coulommier Cheese, Some Notes on its Manufacture.
1910	26	Dairy Legislation.
1911	27	Trial Shipment of Peaches, 1910.
1911	28	The Dairying Industry, an Historical and Descriptive Account.
1911	29	Notes for Factory Cheesemakers.

CIRCULARS.

1910	1	Iced Cheese Cars, 1910.
1911	2	The Milk Test Act.
1911	3	The Outlook for Canadian Tomatoes in Great Britain.

SPECIAL PUBLICATIONS.

1907	Map Showing the Location of Cheese Factories and Creameries in Canada.
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Any of these publications will be sent free of charge on application to the Dairy and Cold Storage Commissioner, Ottawa, Ont.

*Out of print.

†A sufficient number of bulletins 15, 20 and 22 will be sent to the manager of a cheese factory or creamery to supply one to each patron.

