

**CIHM
Microfiche
Series
(Monographs)**

**ICMH
Collection de
microfiches
(monographies)**



Canadian Institute for Historical Microreproductions / Institut canadien de microreproductions historiques

© 1998

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming are checked below.

- Coloured covers /
Couverture de couleur
- Covers damaged /
Couverture endommagée
- Covers restored and/or laminated /
Couverture restaurée et/ou pelliculée
- Cover title missing / Le titre de couverture manque
- Coloured maps / Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /
Planches et/ou illustrations en couleur
- Bound with other material /
Relié avec d'autres documents
- Only edition available /
Seule édition disponible
- Tight binding may cause shadows or distortion along
interior margin / La reliure serrée peut causer de
l'ombre ou de la distorsion le long de la marge
intérieure.
- Blank leaves added during restorations may appear
within the text. Whenever possible, these have been
omitted from filming / Il se peut que certaines pages
blanches ajoutées lors d'une restauration
apparaissent dans le texte, mais, lorsque cela était
possible, ces pages n'ont pas été filmées.
- Additional comments /
Commentaires supplémentaires:

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed /
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /
Qualité inégale de l'impression
- Includes supplementary material /
Comprend du matériel supplémentaire
- Pages wholly or partially obscured by errata slips,
tissues, etc., have been refilmed to ensure the best
possible image / Les pages totalement ou
partiellement obscurcies par un feuillet d'errata, une
pelure, etc., ont été filmées à nouveau de façon à
obtenir la meilleure image possible.
- Opposing pages with varying colouration or
discolourations are filmed twice to ensure the best
possible image / Les pages s'opposant ayant des
colorations variables ou des décolorations sont
filmées deux fois afin d'obtenir la meilleure image
possible.

This item is filmed at the reduction ratio checked below /
Ce document est filmé au taux de réduction indiqué ci-dessous.

	10x		14x		18x		22x		26x		30x	
									✓			
	12x		16x		20x		24x		28x		32x	

The copy filmed here has been reproduced thanks to the generosity of:

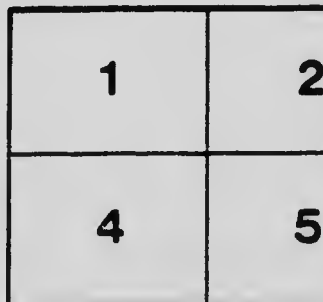
National Library of Canada

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol \rightarrow (meaning "CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

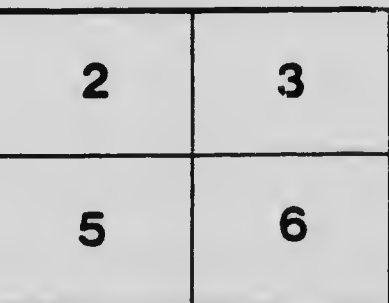
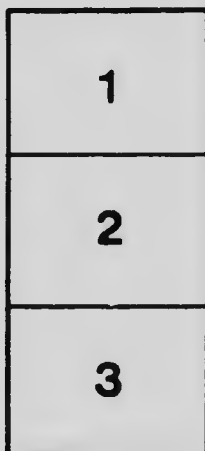
Bibliothèque nationale du Canada

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaît sur la dernière image de chaque microfiche, selon le cas: le symbole \rightarrow signifie "A SUIVRE", le symbole ∇ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.



FOODS AND DRUGS
LABORATORY
OF THE
DEPARTMENT OF TRADE AND COMMERCE
OTTAWA. CANADA.

BULLETIN No. 420

ICE CREAM.

NOTES AND COMMENTS.

Under this heading, as occasion arises, the Bulletins issued by this Department will contain, as an appendix, such comment as may seem necessary or advisable upon matters relating to the work of the Department in connection with the administration of the Adulteration Act, the Fertilizers Act, the Feeding Stuffs Act or the Proprietary Medicines Act.

It frequently happens that correspondents ask information regarding the above Acts, of such a nature that the matter in question possesses general interest, and comment upon it would prove acceptable and useful to others than the immediate questioner. In such cases the reply may find a place in these columns. For convenience of reference these notes will be numbered in series.

A. MCGILL,

Chief Analyst.

FOODS AND DRUGS

LABORATORY

OF THE

DEPARTMENT OF TRADE AND COMMERCE

OTTAWA, CANADA

BULLETIN No. 420

ICE CREAM.

OTTAWA, January 9, 1919.

F. C. T. O'HARA, Esq.,

Deputy Minister of Trade and Commerce.

SIR,—I beg to hand you herewith a report upon sixty-four samples of Ice Cream, purchased by our inspectors in September, October and November of last year.

Ice Cream, formerly looked upon as a luxury, has now come to be regarded as a very desirable food, and is largely prescribed by physicians in cases of convalescence, as well as in certain diseased conditions. Our original standards for the article, as published in G. 934 (Nov. 14, 1910) considered Ice Cream to be essentially a frozen cream, and demanded that it should contain not less than 14 per cent. of milk fat. Later investigation, and especially the opinions of the Medical Advisers of the Department, found that a more desirable article would contain less than 14 per cent. of fat; and G. 1178 (8 April, 1915) was issued announcing that no action would be taken to interfere with the manufacture of Ice Cream containing not less than 7 per cent. of fat. Subsequent developments, consequent upon the scarcity of fats, owing to war conditions, led to restrictions placed upon the use of fats by the Food Board, and we considered it inadvisable to press strict standardization until the close of the war should restore normal food conditions. It is satisfactory to find that most of the samples herein reported are fully up to a 7 per cent. standard; and in the cases (13 in number) where slightly less than this amount is present, I would respectfully recommend that no penalty be imposed, the conditions obtaining during the period covered having been quite exceptional.

In addition to determination of the fat content of these samples attention has been given to the nature of the thickener employed to give desirable consistency. Gelatin is more largely used for this purpose than any other material, being found alone, or along with small amounts of gums, in 36 samples. Our standards permit of the addition of not more than 2 per cent; and this limit is only exceeded in two samples. Other thickeners found are starch (in 11 samples) and gums, with or without starch or gelatin, in 10 samples. None of these articles are in any way objectionable as food products.

Samples containing no thickener.....	17
" " starch only.....	7
" " gelatin only.....	23
" " gums only.....	2
" " gums and starch.....	2
" " gums and gelatin.....	5
" " starch and gelatin.....	2
" " starch, gelatin and gum.....	1

Total..... 64

No. of Sample.	Results of Analysis.			No. of Sample.	Results of Analysis.		
	Fat.	Cane Sugar.	Name of Thickener.		Fat.	Cane Sugar.	Name of Thickener.
	p. c.	p. c.			p. c.	p. c.	
80261	11.51	.....	None.	80890	6.7	9.1	Gelatin.
80264	7.71	.....	"	80901	6.2	6.5	"
80268	11.85	.....	"	80902	6.8	6.6	"
84626	9.0	8.5	"	80901	9.6	10.2	"
80797	7.6	9.9	"	88133	4.4	12.6	"
86444	10.65	8.1	"	88134	8.6	10.2	"
86445	10.60	9.6	"	88136	9.4	11.0	"
86446	9.36	10.0	"	88138	9.6	7.1	"
86447	10.00	9.7	"	88141	10.0	10.7	"
86448	13.20	10.8	"	81367	6.3	7.0	"
68728	6.40	7.04	"	81368	5.7	6.2	"
68731	6.70	8.49	"	81369	9.9	6.6	"
68732	7.70	3.82	"	81370	9.6	10.4	"
86166	9.6	8.8	"	68697	8.5	10.94	"
86167	18.3	14.1	"	68698	8.4	9.20	"
86168	8.7	10.1	"	68729	8.6	6.94	"
86169	11.8	10.4	"	80289	14.14	.....	Gum.
83948	6.69	.....	Starch.	88140	8.6	8.4	"
80266	9.07	.....	"	84628	8.7	14.2	Starch and gum.
80267	11.05	.....	"	88142	10.6	10.4	"
81366	6.20	11.3	"	84629	6.7	6.0	Gelatin and gum.
68695	7.60	1.21	"	86302	6.8	13.4	"
68698	5.80	2.63	"	86303	13.1	13.3	"
68730	11.50	7.88	"	86304	11.5	9.6	"
83942	8.24	.....	Gelatin.	86305	8.8	11.1	"
83947	7.66	.....	"	86135	11.4	10.3	Starch and gelatin.
83949	11.03	.....	"	88137	13.4	11.2	Starch and gelatin.
83950	8.05	.....	"				with Peach Fruit.
80262	10.89	.....	"	88139	8.9	9.8	Starch, gelatin and gum.
80263	13.36	.....	"			
80265	9.40	.....	"			
80270	7.20	.....	"			
84625	9.3	10.6	"				
84627	9.0	12.3	"				
80798	5.8	9.5	"				
80799	5.4	13.7	"				

For the most part the thickener is present to about one half of one per cent; but in two cases, where starch was used, the amounts found were No. 68695, 2.66 p.c.; No. 68696, 2.01 p.c.

The sugar content has been determined in most of these samples, and varies from about 7 per cent to about 12 per cent. in most of them. Two samples contain less than 3 per cent; and six more than 12 per cent sugar; but these are exceptional.

I would respectfully recommend publication of this report as Bulletin No. 420.

I have the honour to be, Sir,

Your obedient servant,

A. MCGILL,
Chief Analyst.



