

LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA
BULLETIN No. 162
ICE CREAM

OTTAWA, September 11, 1908.

W. G. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR:—I beg to hand you a report upon 145 samples of Ice Cream, obtained by our inspectors during July and August of this year. All the inspectoral districts are represented.

These results show much that is of interest; although they are far from being as complete as could be wished. This is mainly due to unexpected difficulties found in transmitting samples of so perishable an article, in a fit state for analysis.

The employment of some preservative being imperative, I selected formaldehyde, and prescribed its use in the proportion of 5 drops of a 40 per cent. solution, to 6 ounces of Ice Cream.

Eighty samples were received in good enough condition to permit of the determination of fat. Fifty nine samples were spoiled, so far as estimation of fat is concerned, others were lost through imperfect packing. Experience shows the necessity of shaking the bottle, to prevent churning during transit, and to exclude air.

The amount of preservative recommended proved quite sufficient to keep the sample in good condition, in spite of the extremely hot weather of last month. Samples from Nova Scotia on the one hand and Calgary on the other were capable of being worked for fat. But some of our inspectors exhibited gross disregard of instructions, and instead of using 6 oz. bottles, quite filled, as they were expressly told to do, used gem jars, and large bottles, which being only partly filled, permitted the sample to be effectively churned, while the contained air assisted decomposition.

We have no standards for Ice Cream in Canada. It is evident that the article should consist essentially of frozen cream and sugar; and had we a standard for cream, such standard should be applicable to frozen cream, unless otherwise specified. The United States standard for cream requires a minimum of 18 per cent. fat; while for ice cream the minimum required is 14 per cent. fat. *Fruit Ice Cream* and *Nut Ice Cream* which respectively contain fruit and nuts, are required to contain a minimum of 12 per cent. of butter fat.

Ordinary ice cream is always flavoured either by natural or artificial extracts of various fruits, vanilla, &c. The addition of these extracts to a cream together with the sugar reduces the percentage of fat; and this is taken into account in the standards just mentioned.

When less than 14 per cent. of fat is present it is usual to add a stiffening material in addition to the sugar, and this practice seems to be followed by some manufacturers