

LABORATORY

OF THE

INLAND REVENUE DEPARTMENT

OTTAWA, CANADA

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BUTTER.

OTTAWA, November 28, 1910.

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Deputy Minister of Inland Revenue.

SIR,—I have the honour to hand you a report upon two hundred and eleven (211) samples of butter, collected throughout the Dominion in June and July of this year.

The standard for butter which has just been made legal, is as follows:—

Butter is the clean non-rancid product made by gathering in any manner the fat of fresh or ripened milk or cream into a mass, which also contains a small portion of the other milk constituents, with or without salt, and contains not less than eighty-two and five-tenths (82.5) per cent of milk fat, and not more than sixteen (16) per cent of water. Butter may also contain added colouring matter of harmless character.

This involves the definition for milk fat, which is as follows:—

Milk fat, Butter fat, is the fat of milk and has a Reichert-Meissl number not less than twenty-four (24) and a specific gravity not less than 0.905 $\frac{(40^{\circ}\text{C.})}{(40^{\circ}\text{C.})}$

One hundred and ninety-five (195) samples or ninety-two (92) per cent of the whole, meet the requirements of the above standards for butter.

Of the remainder, fourteen (14) samples are slightly below the required content of milk fat. In only one instance (No. 45732, Peterboro') is this due to excess of water. It will be noted that the limit for water in butter is fixed at 16 per cent. This is consistent with the requirements of the butter Act of 1903. If then, a maximum limit of water is present in butter, the greatest amount of salt plus curd, which may be present is one and one half (1.5) per cent. As a matter of fact, the average water content of Canadian butter is about ten (10) per cent while salt is usually about three to four per cent, leaving the butter fat content much above the minimum 82.5 per cent required by law. In most of the fourteen cases now referred to, the amount of butter fat is very little lower than the legal minimum, and in only ten cases is the difference more than one (1) per cent. While this reduction of the butter fat below the legal limit, owing to excessive amounts of water and salt, is probably due to mere carelessness in manufacture, I have found it necessary to describe all cases in which the deficiency exceeds one per cent as being technically adulterated.

In two instances the fat fails to respond to the requirements for genuine milk fat. These samples are adjudged to be adulterated by admixture of foreign fat.