

LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA

BULLETIN No. 233

MARMALADES.

OTTAWA, February 13, 1912.

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Deputy Minister of Inland Revenue.

SIR,—I beg to hand you herewith a report upon 154 samples of marmalade, collected throughout Canada in April of last year. This report has been much delayed through the short-handedness of the staff of these laboratories; and the fact that more perishable articles had to be given priority.

Two samples were unfortunately destroyed by rats, whose ravages upon the labels were such as to make identification of the samples uncertain.

All samples, except nine, are orange marmalades.

One hundred and thirty-eight (138) samples are found to be genuine, in the sense that they consist of fruit and sugar. Fourteen (14) samples contain glucose, but in very varying amounts, as follows:—

	Samples.
Traces only.	2
About 2 per cent.	1
" 3 "	3
" 5 "	3
" 10 "	2
" 25 "	3
	14

Owing to the indefinite character of commercial glucose it is impossible to state the percentage admixture with exactitude. The numbers given above are calculated from work done upon a sample of glucose syrup, known to the trade as 43°.

In sample 40615 (10 per cent) the presence of glucose is declared. Under modern methods of manufacture, glucose is a perfectly wholesome article of food. It consists mainly of dextrose (grape sugar) with varying quantities of dextrin (8 to 20 per cent. See Bulletin 96, p. 18). In ordinary processes of digestion, cane sugar (sucrose) is changed into glucose, and dextrin is produced by the action of ptyalin (the amylolytic enzyme of saliva) on starchy foods. Both glucose and dextrin are therefore nutritious foods, and are normally contained in every meal we eat, if not