

LABORATORY
OF THE
INLAND REVENUE DEPARTMENT

BULLETIN No. 90

HONEY, 1903

LABORATORY OF THE INLAND REVENUE DEPARTMENT,
OTTAWA, October 2, 1903.

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

SIR,—I beg to submit herewith a tabulated statement (No. I) giving a description of the samples of honey which were collected according to your instructions of March 27 last, and which have been submitted to examination in this laboratory. Before referring to the particulars given in the table, it seems necessary to make the following explanatory remarks.

Honey is generally understood to be the sweet secretion which working bees produce from feeding on the nectar of the flowers, leaves, etc., of various plants and trees. As is well known, the aromatic constituents of many of these flowers are found in the honeys produced from them. Thus, in this country, clover, buckwheat and other honeys have been distinguished by their taste and aroma, while, on the continent of Europe, such names occur as linde, acacia, heath, conifer, forest and spruce honey. The nectar of flowers contains from 60 to 90 per cent of water, and both fruit sugar and cane sugar have been found in it. It experiences, in the stomach of the bee, certain changes which consist principally in an inversion of the cane-sugar. As is the case with many articles of food in Canada, 'the limits of variability' (see Section 19 of the Adulteration Act) permissible in honey have not yet been legally determined, but it seems to be generally accepted, not only by beekeepers but by the general public, that the feeding of bees in summer time with cane sugar or sugar solution, in order to increase the production, should be regarded as adulteration. This principle is expressly acted on by the association of Swiss Agricultural Chemists, who have also adopted 16 per cent cane sugar as the maximum limit which genuine honey ought to contain. Other chemists place the limit lower, and König states that natural honey may contain up to 8 or 10 per cent cane sugar. Experiments are on record which demonstrate that bees