

## MEMORANDUM ON JELLIES.

OTTAWA, March 8, 1904.

The most complete research into the characters of fruit jellies, to which I have access, is contained in Bulletin 66 of the Bureau of Chemistry, at Washington. The data presented in the accompanying table have been obtained by the methods recommended in the bulletin referred to. In addition to the results tabulated, I may state (1) that no reaction for starch was given by any of the fifteen jelly samples examined; (2) that fruit pulp was found in the following samples: 20429, 20430, 23291, 23806, 23820, 24405, 24408; (3) that the ash of all samples gave very distinct reactions for sulphuric acid, and very faint reaction for hydrochloric acid.

The absence of pulp in jelly is not proof that it is not made from fruit, because the fineness of the texture of the jelly-bag strainer, and the care with which it has been used, are factors in the case.

The following samples appear to be genuine, in the sense of being made with cane sugar, having no preservative, and no artificial dye:—Nos. 20430, 22195, 23291, 23820, 24408.

To this list may be added Nos. 23806 and 23812, since the small quantity of glucose found cannot be condemned, and it is claimed by manufacturers that the addition of small amounts of glucose is desirable to prevent crystallization of the sugars; a (U. S. Bulletin 66, p. 78) claim, however, which appears to be without justification in fact.

The following samples are adulterated in the sense that glucose has been largely used in their manufacture, instead of the more expensive cane sugar:—Nos. 20431, 23290, 23925, 23934, 24405, 24925 and 25021. Of these samples, 20431, 23925, 23934 and 25021 contain salicylic acid; and 23290, 23925, 23934 and 24925 contain aniline dyes. No. 20429 is a genuine fruit jelly, but contains salicylic acid. This is quite unnecessary to the preservation of the article, which contains enough sugar for that purpose; and was probably added to the fruit, to give it keeping qualities, until it could be worked up into jelly.

The adulterated samples may be more definitely classified as follows:—

Containing glucose, preservatives and dyes, Nos. 23925, 23934.

Containing glucose and preservatives, Nos. 20431, 25021.

Containing glucose and dyes, Nos. 23290, 24925.

Containing preservative, No. 20429.

Containing glucose, No. 24405.

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