

LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
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BULLETIN No. 252

GROUND CLOVES
A STUDY.

OTTAWA, March 14, 1913.

WM. HIMSWORTH, Esq.,
Acting Deputy Minister, Inland Revenue.

SIR,—I have the honour to present you a report upon 141 samples of Ground Cloves. The samples were purchased by our Inspectors on the open market, throughout Canada, chiefly of retail grocers who are the usual purveyors of the article.

Cloves are found in the retail trade both in the unground and in the ground state. The form of this spice is so distinctive that, when sold in the unground condition it admits of no sophistication, except that it may have had its essential oil more or less removed by an extraction process. The demand for this oil (*Eugenol*) as a source of artificial vanillin is very considerable, and doubtless accounts for the large amount of exhausted cloves on the market.

We have made two extensive inspections of cloves in these laboratories. The first is reported in Bulletin 73 (October, 1900). This is chiefly a study of whole cloves, and was undertaken in consequence of complaints received from a reputable English house, concerning the importation of exhausted cloves into Canada. Nineteen samples of whole cloves and twenty-two of ground cloves were submitted to analysis; and the results were such as to demonstrate the need of defining limits, particularly as regards the content of volatile oil, for the legally genuine article.

The following conclusion was reached as a result of the work reported in Bulletin 73:—

‘No sample of Cloves claiming to be of good quality, should yield less than 14 per cent of volatile oil when assayed by the methods which are herein described. If total volatile matter is determined by treatment with petroleum ether, before drying at 98° C., the minimum volatile matter found should be at least 16 per cent by weight.’

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