

Development of a semi - quantitative method to determine the cyanogenic glucosides in bamboo shoots for the industrial application

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Bamboo shoots, a common food of the Asian cuisine, needs to be processed prior to cooking, in order to eliminate the endogenous cyanogenic glucosides. Cyanogenic glucosides are toxic constituents produced by the plant as secondary metabolites. "Taxiphyllin" is the type of cyanogenic glucoside presents in bamboo shoots. In this study, Pictate paper kit method used to determine the cyanogenic content in bamboo shoots. The cyanogenic glucoside content of *Dendrocalumus latiferouse* (China) (1090 ppm) was higher than the *Bambusa vulgaris* (Sri Lanka) (995 ppm). No cyanogenic glucosides were found in the processed food. (Manufactured by China). Soaking and cooking of the fresh shoots reduced the level of cyanogenic glucosides to very low concentration (0-10 ppm).

The optimal conditions for the total removal of HCN from the cyanogenic glucosides from fresh bamboo shoots were at pH 8.5 and a temperature of 45°C.

A colour chart was developed as a semi quantitative method for determining the cyanogenic glucosides that can be used effectively in a food processing factory.