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BOOK OF ABSTRACTS

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COMPARISON OF DIFFERENT COCONUT VARIETIES ON CHEMICAL COMPOSITION AND NUTRITIONAL PROPERTIES OF TESTA FLOUR

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ABSTRACT

Coconut testa is the brown colour thin outer covering of the coconut endosperm. It is wasted during coconut processing industry and often used as animal feed. An attempt was made to utilize coconut testa flour as a substitution for wheat flour in bakery industry. Aim of this study was to assess proximate composition of coconut testa flour of four indigenous cultivars namely san raman, gon thembili, ran thembili, TxT against the commercial hybrid grown in Sri Lanka. Partially defatted coconut pairings were dried and ground to obtain coconut testa flour. Moisture, Crude fat and crude protein contents of coconut testa flour were determined according to AOAC (2004). Ash content was determined according to AOAC (1995). The carbohydrate content was calculated by difference. Main constituent of coconut testa flour regardless of cultivar was carbohydrates (42.55-59.24 %) followed by protein (23.82-32.22 %) and fat (7.93-23.49). Commercial hybrid (59.24%) had the highest carbohydrate content. Minimum carbohydrate content was recorded in San raman variety (42.55%). Highest protein content was observed in Gon thambili (32.22%) variety while the least was observed in commercial hybrid (23.82%). Highest fat content was noted in San raman variety (23.49%). TxT variety (7.93%) contained the least fat content. Maximum ash content was accounted in Ran thembili variety (5.30%). Gon thembili variety (3.70%) produced least ash content upon incineration. Highest moisture content was prevalent in San raman variety (4.27%) while the least was observed in commercial hybrid (2.27%). Coconut testa flour is a nutritious substitute for wheat flour which provides value addition to under-utilized by-product of coconut processing industry. As it is non cereal flour which is free from gluten it can be used in gluten free food preparations.

Keywords: Coconut, Flour, Proximate, Testa.