

# QUANTIFICATION AND CHEMICAL ANALYSIS OF WASTE GENERATED DURING THE PROCESSING OF CASSAVA CROCKET

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Cassava (*Manihotesculenta*), is one of the most important food crops in the humid tropics. Sri Lanka has a surplus production of cassava. Developing of proper technologies is needed to increase the utilization of cassava as processed foods for increasing the potential utilizations and minimizing the postharvest losses of the crop. Cassavacrocket, cassava chips and cassava starch are few popular processed cassava products available in the local market. Investigations were carried out to identify the wastes generated during the processing of cassava crocket and chemical analysis were carried out to identify the potential utilizations of the wastes as a preliminary study to apply Resource Efficient and Cleaner production (RECP) Technology to improve the cassava crocket processing.

Processing of cassava crocket was observed at the manufacturing plants at "Maharagama" and "Peradeniya" and the data were collected. The samples of wastes were collected on site, according to the random sampling method to calculate the amounts of waste. The proximate composition of the cassava wastes was analysed according to AOAC methods.

The major wastes of the cassava crocket processing were cassava peel and the liquid squeezed out of grated cassava. According to the results 21.5±1.3percent and 20.8±1.7percent of the total weight of raw cassava root was wasted as peel and liquid squeezed respectively. From the peel waste 3.6±0.5percent of total cassava root is the brownish peel which is the periderm and 17.7±1.0percent of the total cassava root is thick peel which is the cortex. Results obtained from the proximate analysis of raw cassava tuber showed, the moisture content as 63.07±0.4percent, protein content as 1.5±0.3percent, fat content as 0.5±0.03percent, crude fibre content as 3.7±0.4percent, ash content as 1.0±0.2percent and carbohydrate content as 30.23±0.2percent. Proximate composition of cassava peel (cortex) had moisture content of 7.5±0.3percent, protein content of 8.2±0.1percent, fat content of 3.1±0.4percent, crude fibre content of 12.5±0.2percent, ash content of 6.5±0.2percent and carbohydrate content of 71.6±0.5percent.

According to results the total waste generated in the cassava crocket was 42.3% of the total weight of raw cassava root. The thick peel which is high in nutrients can be used as a good source of animal feed and the squeezed liquid can be used to develop snack foods like "Kokis" by incorporation of coconut milk and spices.

**Keywords:** Cassava, Cassava crocket, Cassava peel, waste quantification, proximate analysis