

Standardization and enhancement of quality of palmyrah (*Borassus flabellifer*) jaggery

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Palmyrah jaggery is produced from concentrated inflorescence sap of palmyrah palm (sweet toddy) to a thick consistency. For the jaggery production, sweet sap (pH 6) was collected with the application of lime to stop the fermentation caused by wild yeast and bacteria. The existing jaggery available in the market is inferior in its quality as liquefaction and deterioration of color. It shows poor keeping qualities are due to the presence of moisture from hygroscopic inorganic impurities present in less purified lime produced by local cottage level kiln. Present study was carried out during the period of May to June, using Randomized Complete Block Design in Valikamam area of Jaffna peninsula. To optimize the amount of quick lime (CaO), this experiment was carried out with four different concentrations of quick lime such as 5.0, 3.0, 2.5, and 2.0 grams of CaO in one liter of sweet sap with three replicates. The quick lime used in this experiment was produced from sea shells with 96% purity. Physiochemical quality parameters of produced jaggery samples in the laboratory and the commercial samples were studied and it was compared with Sri Lankan Standards for jaggery. For suitable jaggery production, the optimum amount of quick lime is found as 2.508 ± 0.411 g of quick lime for one liter of sweet sap. The jaggery produced using optimum amount of quick lime was scored high in sensory evaluation.

Keywords: Palmyrah (*Borassus flabellifer*) Jaggery, quick lime, sea shell and sweet sap