

Application of green coconut pulp in edible ice cream

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The residue from the industrialization of green coconut water, pulp and husk, corresponds to approximately 85 % of the fruit and constitutes solid residue of large volume and slow decomposition. Its use by the coconut water packaging industry would be a sustainable practice and would offer an alternative for other companies to adopt procedures for the treatment and reuse of waste from water extraction. The replacement of milk with green coconut pulp in edible ice cream can be an alternative for consumers who experience discomfort due to low tolerance to milk components, especially lactose. The present work aimed to develop the process of producing edible ice cream through the use of nature green coconut pulp, dehydrated by spray dryer or lyophilization. The influence of the concentration of nature (20 to 41 %) or dehydrated (5 to 10 %) green coconut pulp on the quality of ice creams without the addition of thickeners or emulsifiers was evaluated through the following analyses: overrun, pH, freezing point, melting rate and texture of the products. In products with adequate characteristics, structure analyzes were carried out by means of electron microscopy analyze and of consumer acceptability by sensory analysis. The results obtained showed that it was possible to produce edible ice cream with adequate quality and high acceptability through the use of 25 % of nature pulp or 10 % of pulp dehydrated by spray dryer or by lyophilization. The pulp dehydration process did not significantly affect the quality of the ice cream. It was possible to produce an ice cream with adequate characteristics without the addition of emulsifiers or thickeners through the addition of fresh or dehydrated green coconut pulp due to the functionality of the proteins present in the medium.