

ID 105

Development of cashew (*Anacardium occidentale*) apple flour incorporated cookies

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Abstract

The wastage of cashew apple is high in Sri Lanka. With a view to improve the utilization of cashew apple by value-addition, it was processed into flour and used in the making of cookies. Cashew apple flour (CAF) was blended with wheat flour, at levels of 0%, 10%, 20%, 30% and 40% (w/w) for making cookie dough and the weight (g), diameter (cm), height (mm), volume (cm³), density (g/cm³) and, spread ratio like physical parameters of cookies were measured. The products were subjected to sensory evaluation. Sensory properties of cookies were evaluated by 30 semi-trained panelists using a 7-point Hedonic scale (7 for 'like extremely' down to 1 for 'dislike extremely'). The formulation with the best organoleptic properties was used to determine the proximate compositions against the control containing 100% wheat flour. The CAF and wheat flour blend cookies were not significantly different ($P>0.05$) in terms of their weight, diameter, height and spread ratio. However, significant differences were present in the volume and density of cookies. The best sensory attributes resulted from 30% CAF and 70% wheat flour in the cookie. The new formulation reported relatively lower crude protein (12.33%), crude fat (16.25%), and ash (1.57%) contents while it had higher fibre (6.33%) content compared to the control (15.04%, 18.36%, 1.68%, and 5.56%, correspondingly). The moisture content of fresh cookies made from the flour blend was relatively higher (7.46%) than that of control (6.43%). Cookies were stored in LDPE bags at room temperature. Cookies incorporated with 30% cashew apple flour could be introduced as a value-added food product after further studies on its shelf-life.

Keywords: Cashew apple, Cookies, Flour, Physical properties, Sensory attributes

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