

Development of Protein Rich Cookie Using Desiccated Coconut and Soy Protein Isolate

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Coconut based products becoming popular in Sri Lanka. Nevertheless, less protein content of coconut impairs the nutritional quality of such products. Soy protein powder is rich in high-quality protein and it improves the texture, taste, and colour of food. This study was conducted to develop protein rich cookie using desiccated coconut and soy protein isolate powder as main ingredients. Three treatments of cookies were prepared in triplicates by incorporating desiccated coconut and soy protein isolate in the amounts of 42.4:4.7, 37.7:9.4 and 33:14.1 % (w/w) respectively and using fixed quantities of sugar, brown rice syrup, vanilla, salt, sodium bicarbonate, and water. Cookies were baked at 105°C for 2-3 hours. Sensory properties of cookies were evaluated by a sensory panel consisting of 30 untrained panelists using a 9-point Hedonic scale. Crude protein, total fat, free fatty acid, sugar, and moisture contents of the selected sample were analysed. Sensory data were analysed by Friedman test ($p < 0.05$) using Minitab 18 version. The organoleptic characteristics evaluated were colour, texture, aroma, taste, and overall acceptability. As per the sensory results, cookie prepared 70g desiccated coconut, and 30g of soya protein isolate was selected as the best. This product contained 18.5% protein, 34% of total fat, 21.5% of sugar, 0.9% of free fatty acid, and 0.45% of moisture. It can be concluded that protein rich cookie with better sensory properties can be prepared by incorporating desiccated coconut and soy protein isolate at 70:30 ratio respectively.

Keywords: Desiccated coconut (DC), Soy protein isolate powder, Protein content.