

PHYSICO-CHEMICAL AND ORGANOLEPTIC PROPERTIES OF SNACK CRACKERS INCORPORATED WITH DEFATTED COCONUT FLOUR

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The consumer demand is increasing for healthy snacks. Crackers are popular as healthy snacks and there is a high potential to enhance the nutritional value by incorporating natural ingredients. In the present study, dietary fiber content of the crackers was improved by incorporating defatted coconut flour (DCF). The chemical and functional properties of DCF and all purpose wheat flour (WF) were studied. Crackers were prepared by incorporating DCF into WF at 10, 20, 30, 40% (w/w) and palm oil was replaced with VCO. Sensory evaluation was conducted using a 5-point hedonic scale with 21 panelists based on colour, crispiness, texture, taste and overall acceptance. Physico-chemical characteristics and shelf life studies were carried out after packing in triple laminated Aluminum foil and stored under ambient conditions. DCF was characterized with significantly higher crude fiber (17.69%), protein (22.10%) and mineral content (6.17%) than WF. The water holding capacity, bulk density and oil holding capacity of DCF were significantly higher than WF ($P < 0.05$). All the prepared crackers had significantly higher ($P < 0.05$) protein, mineral and fiber contents compared to control (100% WF). As the concentration of DCF was increased, spread ratio and weight of the crackers increased while thickness and puffiness decreased. The keeping quality decreased with the increasing level of DCF. The results revealed that up to 20% (w/w) DCF can be incorporated in formulation of crackers without compromising the physico-chemical and sensory attributes. The approximate cost of preparing crackers was Rs. 80.00 / 100g. The outcome of this study demonstrates that there is a potential of using DCF in processing of healthy snack food items such as snack crackers at low cost.

Financial assistance given by Coconut Research Institute, Lunuwila, Sri Lanka is acknowledged.