

^o **Nutritional, Physicochemical, and Sensory Properties of Kithul (*Caryota urens*) Flour Incorporated Chicken Sausages**

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The consumption of convenient food products such as sausages has increased its demand over the last few decades due to the change of lifestyles in Sri Lankan population. However, the consumers' concerns about healthy foods compel the meat processors to incorporate locally available natural ingredients with various functional properties into meat products to improve their quality. Kithul (*Caryota urens*) flour is one of the locally available starch sources with known health benefits. However, its application at the industrial level is limited. Therefore, this study evaluated the potential of incorporating Kithul flour (KF) as a starch source instead of wheat flour to improve the health attributes of chicken sausages. In this study, nutritional, physicochemical, and sensory properties of KF incorporated chicken sausages were evaluated. Chicken sausages were prepared by replacing wheat flour with KF at three different levels; Treatment 1 (3% KF), Treatment 2 (5% KF), and Treatment 3 (7% KF), and compared with the control (C), added 5% wheat flour. Three percent KF incorporated sausages was identified as the most preferred by sensory evaluation and supported by higher ($P < 0.05$) crude fiber, and pH compared to the control. However, water holding capacity (WHC) and colour (L^* value) were lower ($P < 0.05$) in 3% KF incorporated sausages compared to the control. Decreased values for thiobarbituric acid reactive substances (TBARS) (0.2123 mgMA/kg) and shear force (6.43 N) were observed in 3% KF incorporated sausages compared to the control. There was no difference ($P > 0.05$) in drip loss and cooking yield of 3% KF incorporated sausages compared to the control. This study identifies the significant antioxidant potential of KF at a level of 3% in chicken sausages without having any adverse effects on nutritional, physicochemical, and sensory properties.

Keywords: Kithul flour, Chicken sausages, Physicochemical, Nutritional, Sensory properties

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