Effect of rice bran and carboxymethyl cellulose addition on the physicochemical quality of chicken sausage formulated with red palm mid fraction

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The objective of this study is to determine the effects of dietary fiber on the sensory properties of cooked chicken sausages by partial substitution of chicken fat (CF) with red palm mid fraction (RPMF). Four sausage formulations with the fat level of 5% were blended with rice bran 1.5% (RB) and carboxymethyl cellulose (CL). Instrumental analysis of water activity (a_w), cook loss, pH value and texture (hardness) were performed to measure physicochemical properties. Sensory properties were estimated using a hedonic test. Statistical analysis was performed by using SPSS. The results showed that this fiber is compatible when used with red palm mid fraction (RPMF) fat in chicken sausages. The panelists indicated that all the formulations except the treatment with RPMF+CL were not significantly different to the control in terms of acceptability. In conclusion, the lipid content, when substituting CF with RPMF, with rice bran carboxymethyl cellulose, yielded acceptable chicken nuggets. This indicates the RPMF and rice bran formulations were equally comparable or better than the CF formulation. It is recommended that multiple analyses with different analytical instrumentation (GC, FTIR and UV-Vis) may explain better the antioxidants behaviour and oxidative stability of the products. © IDOSI Publications, 2012.

Carboxymethyl cellulose; Physicochemical quality; Red palm mid fraction; Rice bran

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