

PHYSICAL AND FUNCTIONAL PROPERTIES OF BREAKFAST CEREALS FROM MAIZE, AFRICAN YAM BEAN AND COCONUT CAKE

Okafor G. I.¹ and G. O. Usman²

¹Department of Food Science and Technology, University of Nigeria, Nsukka, Enugu State, Nigeria.

²Department of Food, Nutrition and Home Sciences, Kogi State University, Anyingba, Kogi State, Nigeria email:gabriel.okafor@unn.edu.ng;

ABSTRACT

*The physical and functional attributes of ready-to-eat breakfast cereals produced from blends of maize (*Zea mays*), African yam bean (*Sphenostylis stenocarpa*) (AYB), defatted coconut (*Cocos nucifera*) cake and sorghum (*Sorghum bicolor* L. Moench) malt extract, were evaluated, to generate essential data on the products. Six samples were formulated by mixing the AYB and maize composite flour with graded levels of defatted coconut (100:0, 90:10, 80:20, 70:30, 60:40, 50:50), sugar, salt and water. The samples were mixed and toasted at 280°C for 5mins each in a non-stick metallic pan, cooled and packaged. The results revealed the following ranges of physical and functional properties; pH (4.70- 6.56), bulk density (0.29 - 0.71g/ml), water absorption capacity (68.31- 76.39%), oil absorption capacity (0.87- 1.32%), foam capacity (2.48- 3.49%), viscosity (19.73-31.08%), gelation temperature (121-157°C), emulsification capacity (5.79-9.86 g/100g), wettability (15.67-23.22 sec.) and invitro-protein digestibility (66.30- 82.2%). It is evident that there are significant variations of physical and functional attributes with addition of defatted coconut fibre in the formulations.*

Contact us for full article. Email: info@agrosciencejournal.com