



Proximate and Functional Properties of Ogi Made from Dried Blends of Composite Flour of Yellow Maize (*Ogi*) Flour, Bambara Nut Flour, And Defatted Sesame Seed Flour

Ibrahim Kaosarat Olawunmi & Adeosun Monsurat Olamide

Department of Science Laboratory Technology, Federal Polytechnic, Ilaro, Nigeria

Corresponding author email: kaosarat.ibrahim@federalpolyilaro.edu.ng

Introduction

In Nigeria, *ogi* is referred to as pap and akamu in the south, *ogi* in the west, and koko in the north. This traditional fermented staple cuisine is primarily prepared from various cereals such as maize, sorghum, or millet. Depending on the cereals used to prepare *ogi*, there is change in colors, tastes, and nutritional values. (Adelekan *et al.*, 2010). The consumption of *ogi* as breakfast meal and weaning food in most Africa countries cannot be overemphasized. And during the processing of *ogi*, a lot of nutrients are lost like soluble vitamins and some minerals are leached into the water during the soaking and sieving processes. Thus, there is need fortification to replenish the loss nutrient. The aims of the study evaluates the proximate and functional properties of *ogi* produced from maize, Bambara nut and defatted sesame seed.

Materials and method

Yellow maize (*Zea mays*), Bambara nut (*Vigna subterranean*) and Sesame seed (*Sesanium indicum*) were purchased from a retail market in Ilaro, Ogun State, Nigeria. The (*Ogi*) flour were prepared using a modified method of (Akingbala, Akinwande *et al.*, 2005). The proximate analysis of *Ogi* were analyzed using the method outlined by (AOAC, 2012) and Functional properties (Bulk Density, Water Absorption Capacity, Oil Absorption Capacity and Solubility were evaluated.

Results and discussion

The result of the proximate analysis shows that the moisture content ranged from (5.05 to 8.22%), fat (4.75 to 7.00%), ash (1.34 to 2.42%), fiber (2.86 to 4.95%), protein (7.85 to 11.74%) and carbohydrate (70.69 to 75.01%) respectively with an increase in Bambara nut. The functional properties shows that the (WAC) ranged from (211.59 to 251.64g/g), (OAC) (102.47 to 131.42g/g), Solubility (15.87 to 20.53%) and bulk density (0.703 to 0.761g/ml) respectively. The samples vary statically ($p < 0.05$).

Conclusion

The study shows that the addition of bambara nut and defatted sesame seed to *Ogi* have relatively improved its nutritional content. The increased level of protein content may contribute in alleviate problems of protein-energy malnutrition and improve the dietary value for consumers. Nutritious and acceptable *Ogi* can be prepared from yellow maize, bambara nut and defatted sesame seed. However, the composite flour blend with 75:15:10 ratio, MBD2 is much preferable as it compared favourably with the control.