

NUTRITIVE VALUE AND SENSORY QUALITY OF FERMENTED CASSAVA SOY SUPPLEMENTED FLOUR

^{*1}Ikya, J. K. ¹Gbagir, B. T. ¹Eke, M.O.

¹Department of Food Science and Technology, University of Agriculture, P. M. B. 2373, Makurdi.

^{*1} Corresponding author: aveyina2012@gmail.com

ABSTRACT

In this study unfermented cassava mash was prepared and developed into four different samples A, B, C and D as an approach to add and improve nutritive value. To obtain flour sample (A) containing only 100% unfermented cassava, the mash was dried and milled. Part of the unfermented cassava mash was supplemented with to prepare flour sample (B) in the ratio of 80:20 respectively. Flour sample (D), 100% was obtained by fermenting cassava mash for 48 hours followed by drying and milling. Flour sample (C) was obtained from fermented cassava mash supplemented with soy mash of ratio of 80:20 respectively. All the cassava flour samples were each subjected to proximate composition, hydrocyanic acid, sensory quality and nutritive value analyses. The results showed that protein, fat, ash, crude fiber increased with fermentation. The protein content of fermented cassava-soy flour was 12.14 ± 0.28 and was found to be greater than the unfermented cassava-soy flour (9.84 ± 0.04). Hydrocyanic acid decreased with soy supplementation and fermentation. The results of sensory quality analysis showed that there was no significant difference ($p > 0.05$) in the overall acceptability of the various cassava flours at. However, the results revealed significant differences in colour, aroma, texture and taste of the four cassava flours. The fermented soy supplemented cassava flour was higher in nutritive value than the rest of the flour samples in all aspects including; WG (4.01), NU (0.02), FND (52.56), PER (0.033), and FCE (54.76). These were closely related to the control (casein).

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