

Nutrient Composition and acceptability of Bread and Fufu produced from complementary Cassava (*Manihot esculenta*) and Mungbean (*Vigna radiata*) Flour

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Abstract

The lingering poor food system in Nigeria, societal influence and low economic status of most households has given rise to very low access to nutritious diets. This motivated the need to explore the complementary benefit of cassava and mungbean flour in bread and *fufu* production for a sustainable healthy diet.

Nutrient composition and acceptability of bread and *fufu* produced from cassava-mungbean flour blends was investigated. High quality cassava flour (HQCF) complemented mungbean flour at different levels (10C:60W:30M; 20C:50W:30M; 30C:40W:30M) in bread production. Likewise, odourless fufu flour (OFF) complemented mungbean flour at different levels (50M:50F; 40M:60F, 30M:70F, 60M:40F) in *fufu* production. Nutrient (proximate and phytochemical) compositions and acceptability test of bread and *fufu* samples were determined on a 9-point hedonic scale.

Result showed slight improvement on protein content, ranging from 4.97% - 9.14% (bread) and 0.96%- 1.4% (*fufu*). Low moisture (7.02%-9.64%) and anti-nutrient (oxalate: 0.02%-0.17%; saponin: 0.13%-0.27% and tannin: 0.11%-0.12%) compositions were found in *fufu* samples. Bread and *fufu* samples yielded appreciable calorie value (1502 KJ-1561KJ) and were acceptable to the taste panel members, with high ranking of more than 4.0 obtained in all the parameters tasted.

Acceptable bread and *fufu* with improved nutrient composition were obtained from flour blends of cassava-mungbean. Therefore, is, recommended for use at households for bread and *fufu* production.

Biography

Agugo, Udodiri Agatha holds a doctorate degree in Community/Public Health Nutrition. She is a lecturer in the Department of Human Nutrition and Dietetics, Ambrose Alli University Ekpoma, Nigeria. She is a certified Nutrition Consultant and Resource Person. She has great passion in promoting healthy dietary habit in individuals and at the household level. She has collaborated in several nutrition related research articles and textbook published in reputable journals. She is a mentor with the Publons/Web of Science Academy and African Girls Education (AGE). Currently serving as Editorial Board Member in four (4) online peer-review journals. She is an active member of four professional bodies (ASN, NSN, OWSDC, WIT).