Evaluation of Lafun fortified with African Breadfruit Tempe

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Cassava flour popularly known as lafun is staple for millions of people in Nigeria. It has a high carbohydrate content and low concentration (<1%) of poor quality protein. Protein deficiency is a major problem in Nigeria, therefore, there is need to evaluate sources of low cost protein to alleviate this problem. This study conducted nutritional improvement of cassava flour (lafun) with African breadfruit ‘tempe’ flour. Various combinations of cassava and tempe flour were evaluated. Acceptable blend (70% cassava flour and 30% ‘tempe’ flour) and lafun were subjected to nutritional and sensory evaluation. Total cyanide was 1.40 ± 0.70 mg HCN/100g for the lafun/tempe blend and 1.70 ± 0.32 mg HCN/100g for lafun. Proximate composition shows that lafun had lower crude protein content (2.96 ± 0.44) than lafun/tempe blend (9.78 ± 0.37). In contrast, lafun had higher crude carbohydrate (82.29 ± 3.77 vs 75.84 ± 1.55) and fat (6.59 ± 0.33 vs 5.98 ± 0.15) contents, respectively. Sensory evaluation gave no significant (p>0.05) differences, except for aroma. Lafun recorded higher scores in visual appearance and texture while the lafun/tempe blend recorded higher in aroma and taste. Weaning Wistar rats fed on lafun/tempe blend had normal growth comparable to the control commercial feed. Fortification of cassava flour with breadfruit tempe flour gave values of improved nutritional quality and is recommended for use in areas where cassava products are consumed and protein intake is inadequate.