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Effect of the inclusion of bambara nut (*Vigna subterranea* L.) and plantain (*Musa paradisiaca*) flours on the nutrient compositions and functional properties of cassava fufu (*Manihot esculenta*)**Ngozika C Okechukwu Ezike**
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Cassava Fufu, one of the foods that are swallowed mostly without chewing, in the process of eating it is tasteless and high in carbohydrate. The nutritional value is dependent on the nutrient quality of the soups it is eaten with. Unfortunately, most of the low-income earners; the locals in the suburban and rural areas, where fufu is the main staple cannot readily afford the high costs of adequate animal proteins to enrich their meals. Consequently, this results to the high prevalence of protein energy malnutrition, diabetes and other nutrition related diseases among the elderly and children. Hence, the utmost importance to enrich cassava fufu products, with cheap plant proteins from legumes is to alleviate these conditions. Bambara nut and plantain are abundant all year, rich in protein, vitamins and minerals. Bambara nut, though underutilized has great potentials to influence the nutritional profile of the fufu. The rich nutrients in plantain will further boost the legume in the product. The fufu flour was obtained after peeling, fermentation for 4 days, sieving, dewatering and drying at 80°C, 3 h. The bambara nut was boiled for 40 min, dehulled, dried at 105°C, 2 h, milled and sieved. The green plantain was peeled, sliced, blanched at 60°C, 15 min, dried, milled and sieved. The formulations were blended at different ratios of cassava, bambara nut and plantain flours. The effects of the inclusions were determined on three different samples respectively through the analysis of their proximate compositions and functional properties; using appropriate, standard methods. The protein contents ranged from 4.86-6.88%, fibre: 3.85-5.58%, ash: 1.85-4.59%, moisture content: 12.74-6.82%, carbohydrate: 60.49-79.54%. The functional properties were: water absorption capacity: 4.83-7.65 g/g, oil absorption capacity: 3.25-4.45 g/g, swelling index: 6.56-11.83 gcm⁻³ and bulk density: 0.46-0.85gcm⁻³. The blend with equal ratios of cassava, bambara and plantain flours had the highest protein, water absorption capacity, ash, swelling index and lowest bulk density. The physical attributes: colour, texture and moldability were highly acceptable; the cooking time was the shortest for 4 min, varying the ratios of the bambara and plantain, yielded fufu blends of better nutrient and functional status, necessary to check the protein, energy malnutrition prevalent in the developing nations. Higher inclusions of bambara nut flour will yield fufu flour of higher protein values.

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