



Coconut flour composite with bioactive components, dietary fibre, antioxidant flour

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Coconut residue obtained after the extraction of oil or milk is usually used as animal feeds or discarded. However, this residue is high in dietary fibre which is understood to significantly promote digestion. Therefore, so as to explore its potentials in food formulations, flour blends were produced with nixtamalized maize and defatted coconut flour which were analyzed for the dietary fibre, functional, pasting and antioxidant properties while the sensory acceptability of masa from the flour blends was evaluated. The outcomes revealed that protein, fat and fibre increased while carbohydrate decreased as coconut flour inclusion increased. Bulk density decreased and water and oil absorption capacity of the flour blends increased. The soluble and insoluble dietary fibre was significantly increased also because the bioactive constituents and antioxidant properties. Sensory evaluation showed that 10% incorporation of coconut flour was like the control and preferred by the consumers. Conclusively, defatted coconut flour significantly enhanced the dietary fibre, functional and antioxidant properties of the flour blends which suggests their application in diverse food products.

Coconut, coconut, is one among the palm species with significant economic importance and cultivated mainly for the endosperm. Virgin copra oil is very demanded within the market globally and alongside leading to the generation of coconut residues, the by-product, that's often discarded. there's the necessity for converting industrial by-products into functional ingredients for food formulations. Coconut flour springs from coconut residue generated during

the wet processing of coconut for milk extraction or dry processing for oil extraction. Trinidad et al [1] emphasized on coconut flour as an upscale source of dietary fibre and income to the industry. Coconut flour isn't just abundant in dietary fibre, but also freed from trans-fatty acids and low in carbohydrates. Coconut flour is gluten free which makes it suitable for people having disorder.

Exploits of by-products and wastes generated from food is attracting more attention within the food industry. the utilization of flour blends in foodstuff development to reinforce nutritional values, promote health status and to satisfy several consumer preferences is growing globally. Flour blends are predominantly utilized to combat micro and macronutrient deficiency, reduce dependency on flour for bakery products and to manage chronic diseases. The dependence on cereal as a staple food in African countries has necessitated the necessity for improving the standard and acceptability of cereal-based foods. This study tends to seem into the use of by-product from virgin copra oil production that's rich in protein and fibre. The by-products might be greatly utilized for nutritional enhancement of food products by incorporation into various sorts of food formulations. The study therefore investigates the nutritional composition, antioxidant properties, bioactive constituents, total dietary fibre, functional and pasting properties of flour blends developed from maize and defatted coconut flour and therefore the sensory evaluation of masa from the flour blends of maize and defatted coconut flour.