

Development and Characterization of Biscuits Incorporated with Jackfruit (Artocarpus heterophyllus) Seeds and Cassava (Manihot esculenta)

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Abstract : This study includes development of two varieties of biscuits incorporated with: the seeds of Jack fruit (Artocarpus heterophyllus), which post-consumption of its pulp, is discarded as a waste, and Cassava (Manihot esculenta) tubers. The jack fruit seeds and cassava were first ground into flour and its proximate and physiochemical properties were studied. The biscuits that were developed incorporating them had 50% wheat flour and 50% jackfruit seed flour and 50% cassava flours as the major composition, apart from the other general ingredients use in making biscuits. Various trials of compositions were made for baking to get the overall desirable acceptability in biscuits through sensory evaluation. Finally, the best composition of ingredients was selected to make the biscuits, and hence studies were done accordingly to compare it with the properties of their respective raw flours. The results showed that the proximate composition of the biscuits fared better than that of their respective flours: There was a decrease in the Moisture content of both Jackfruit Seed Biscuits and Cassava Biscuits to 4.5% and 6.7% than that of their respective raw flours (8 and 12%). Post-baking, there is increase in the percentages of ash, protein, and fibre contents in both Jackfruit Seed Biscuits and Cassava Biscuits; the values being 3% and 3.8%, 13.2% and 3.3%, and 3.2 and 4.1% respectively. Also the total carbohydrate content in Jackfruit Seed Biscuits and Cassava Biscuits were 66.7% and 71.7% respectively. Their sensory evaluation and texture study also yielded a clear review that they have an overall good acceptability.

Keywords : baking, proximate, sensory, texture

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