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**Production Of 'Utazi' Flavoured Biscuit From Wheat and Cassava Flour
Composite**

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Abstract

Wheat flour, blended with cassava flour in a 1:1 ratio were used to produce three samples of biscuit. The biscuits were produced with 'Utazi' extract. Samples A had 10% of the extract. Samples B and C had 20 and 30% respectively. Proximate analyses of the samples showed that B had the highest moisture content (5.09%), while sample C was least with 2.88%. The crude protein contents are 8.05 and 7.62% for samples A and C respectively. The average fat content of the three samples was 25%. The mean score for sensory evaluation in colour, texture, flavour, taste and general acceptability, are respectively 7.9, 7.5, 6.1, 7.2 and 7.3 for samples A. For sample B they were 6.2, 6.5, 5.1, 5.0 and 5.8 and samples C; 6.8, 6.6, 5.5, 4.4 and 5.3. Relatively, sample A was most acceptable.

KEY WORDS: *Biscuit, Flavoured, Composite Flour, Acceptability.*

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Introduction

Biscuit may be regarded as a form of confectionery dried to very low moisture content (Okaka 1997). In Nigeria today, biscuit is a highly consumed snacks. The incorporation of cassava is justified by the work and finding of Achukoh (1992). They found that it is possible to produce an acceptable biscuit from combination of wheat and cassava flour. They however maintained that the quality and nutritional value could be improved. 'Utazi' is a kind of spice common in the Eastern part of Nigeria. It is normally used for preparation of sauces used in eating of roasted yam. The people believe it has medicinal qualities and they use it for treatment of cough and cold. There is a bitter 'after taste' effect one feels after the consumption of 'Utazi' sauce. This bitter after taste effect is pleasing to most people. Based on this popularly accepted effect, it is highly expected that if a product like biscuit could retain the effect after production. Such a product is very likely to be acceptable to a good number of consumers. Secondly, it would be a good way of finding industrial use for the local leave 'Utazi'. The objective of the research therefore was to produce biscuits with aqueous extract of 'Utazi', with the aim of assessing the acceptability of the 'Utazi' flavoured biscuit.

Materials and Methods

Cassava and wheat flours were bought from the Wunti Market, Bauchl. Five hundred grams (500g) of 'Utazi' leaves were washed, pounded and soaked in 200ml of water. Soaking lasted for one hour after which the leaves were washed and the water sieved out to become the needed extract. The samples were formulated as shown in Table 1.

Ash, Moisture, Fat and Protein Content Determination

The methods described by Pearson 1981 were used for assaying the above parameter. For fat, the method of Araund, et al (1987) was used.

Sensory Evaluation:

The three samples were subjected to sensory evaluation using 10 man panelists at a 9 point Hedonic scale and result analyzed with Analysis of variance (ANOVA).

RESULTS AND DISCUSSION

Proximate analysis of the three samples revealed that sample B (20ml of 'Utazi' extract) contains more protein on dry basis compared to samples A and C (30ml of 'Utazi' extract). The same goes for moisture content. According to Table II, sample B had moisture content of 5.09% compared to 4.15 and 2.88 of samples A and B respectively. On overall acceptability, sample A scored the highest mark of 7.3 to become significantly different from the other two samples.

The reason for the observed difference in protein content could not necessarily be as a result of protein content of the flavoring 'Utazi'. In the first place, the quantity added (20ml) is small to make such a difference. Secondly, like most vegetables the protein content of whole 'Utazi' leaf is small (0.9 – 1%) Aurand et al, 1987. The lower lipid as well as ash levels for this sample could result to that apparent level of protein, on weight basis.

The most striking observation among the results is the fact that sample A was highly rated in terms of sensory parameters. It implies that at <10% levels of addition; the bitter after effect of 'Utazi' spice was not only retained by the biscuits, but was highly acceptable to the panelists. It is now left to the commercial producers of biscuit to utilize these realizations.

Table 1: Formulation of samples

Components (g)	SAMPLES		
	A	B	C
Wheat Flour	50	50	50
Cassava Flour	50	50	50
Baking Powder	0.2	0.2	0.2
Fat	50	50	50
Sugar	20	20	20
Salt	0.1	0.1	0.1
Milk	10	10	10
'Utazi' Extract	10	20	30

Table 2: Chemical Composition of Biscuit Samples

Sample	Moisture	Ash	Lipid	Protein	CHO
A	4.15	2.11	25.90 7.05	60.79	
B	5.09	1.65	24.94 8.85	59.17	
C	2.88	1.11	25.67 7.62	62.72	

Tab 3: Sensory Evaluation Result

Sample	Parameter				
	Colour	Texture	Flavour	Paste	Gen. acceptability
A	7.9a	7.5a	6.6a	7.2a	7.3a
B	6.2b	6.5b	5.1b	5.0b	5.8b
C	6.8b	6.6b	5.5b	4.4b	5.3b

Any two means with the same subscript are not significantly different ($P < 0.05$).

PRODUCTION OF BISCUITS

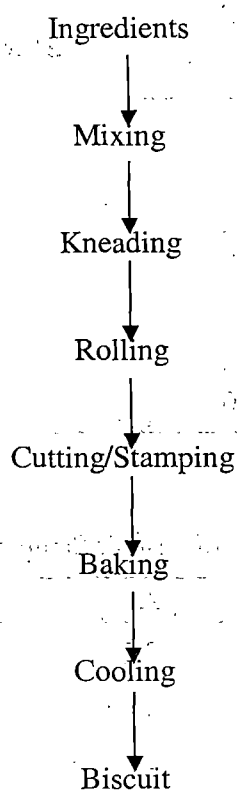


Fig. 1: Process Flow Chart for Biscuit Production

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