

Development and Standardization of Furra in To Convenient Food

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Abstract: Fulla, is a special traditional meal made from pre cooked millet and eaten as convenient food in most African countries due to its availability and easy to prepare nature and Ghanaians are not exceptional. Traditionally it is mixed with bare fingers by sellers to buyers for consumption. It is known in the northern sector of Ghana as furra, however due to its tasty nature, it gradually gained patronage also in the southern sector of Ghana. The name which was furra was then pronounced as fulla by the southerners. This product name has come to stay and is now popularly known as 'fulla'. Furra is a nutritious meal but owing to its unhygienic preparation, poor presentation, and packaging a lot of people are not attracted to patronize it. Every five hundred grams (500g) of furra contains 15.5 % protein, 14.5% carbohydrate, 6.5 % fat, 0.5% ash and food energy is 230kcl. In view of this, the research developed furra powder by making it more convenient and attractive by means of improving its preparation, flavour, packaging and presentation. Furra powder was developed by boiling moulded millet flour in boiling water for 30 minutes; the product was crushed and dried in an oven for 20 minutes. The dried product was blended with spices into a powdered form. The powder was sieved, heated and packaged. The essential nutrient in the product provides the body with heat and energy promote growth as well as proper maintenance of the body. From the several attempts made, Powdered Instant Furra mix was developed. The study revealed there was the need to improve traditionally made furra since 80% of the respondents were of the view that there is the need to improve the traditionally made furra. The hygienic preparation, flavour and presentation, revealed that the Instant Furra Powder could be a substitute or compliment to the already existing locally made furra.

Keywords: Fulla, furra. Food, energy, nutritious, powder, product, Ghana.

I. INTRODUCTION

If one factor could be said to have made America the land of opportunity, it is the ability to support the growth of wheat and cereals. In Ghana, cereals are the staple foods for the majority of the population, because they are relatively easy to grow and are cheaper. The Upper East, Upper West and the Northern region are widely known for the cultivation of millet, but surprisingly, it is being consumed by almost all the ten regions in the country. Millet is normally grown in large quantities; it is also a seasonal grass which starts from October to April. The most popular product of millet acceptable by all Ghanaians is the porridge "koko" and "furra". Furra is a product from millet. It is moulded in ball-like shape, sprinkle with a little corn flour and most Ghanaians would like to take it as a dessert, as snack, or as breakfast.

The liberalization of Ghana's economy has led to the emergence of several convenience foods being produced and marketed in Ghana. Such convenience foods are made either locally by commercial enterprise or imported. Millet is a cereal that is very nutritive and contains essential nutrients which provides the body with heat, energy, promote growth and proper maintenance of the body. Some of the advantage of millets is that it can be stored for a longer a period of time without the use of insecticide than any other cereals and also the oil and protein contents of millets are higher than those of Sorghum, rice and maize (Kordylas, J.M. 1999 6/7).

Realizing the low nutrient value of these convenience foods and cost of packaging, in the Ghanaian economy, it has become very necessary to just formulate one such convenience food known as Fulla Powder which has almost all the nutrients in the right proportion.

II. MATERIALS AND METHODS

In Ghana, millet is often grown in October to April, well before the rain starts and when rainfall is unreliable, the main object of sowing so early is to allow a second grow to grow within the year. After the first month, it requires a steady supply of soil moisture if good yield are to be obtained.

Yields are usually between 400 and 800lb of dried grain per acre (c.450-900kg) It can easily be obtained with good husbandry. Large scale farmers in Kenya have product (3000lb per acre 9c. 3400kg) and work in Ghana has shown that (4000lb per acre 9c. 4500kg) can be achieved. According to Guiltion, J.P and Paul G.W (1990: 30), product development involves the development of new products for existing markets in order: meeting changing customer needs and wants match new competitive offering take advantage of new technology, meet the needs of specific market segment.

Product development means offering new or improved products for present market. By knowing the present market needs, a firm may see ways to satisfy customers (Perreault, W.D.J.R and Mearthy, E.J 1997:70)

Ray, M.F, et al (1988: 48-53) are also of the view that a recipe standardisation means that the recipes have been carefully tested to give the quality and quantity of food each time the recipe is prepared. Using standardisation does not guarantee cooking success.

A recipe is considered to be standardised for a good service operation only when it has been tested and evaluated. Adopted for use and repeatedly prepared under the same carefully controlled conditions with consistent results by the food service operation to meet their objective effectively. Standardisation of recipes includes the standardization of the format, ingredients, type, form and grade. Equipment and utensils, work procedures and handling techniques, temperature and time, total yield in height, volume and or number of portions. Portion size in weight, volume and or count and portioning and serving procedures and any substitutions or changes may naturally affect the quality and quantity of the final product. These should be done with great caution.

In testing for the acceptability of the product, a target population of 40, comprising of lecturers and students from the hospitality department of the School of Applied Science were used for the study. a sample size of 40 questionnaires were given out on the day of the practical. The research work was experimental type. Furra was developed by milling, boiling and drying method. The product was dried in an oven to slow down the action of micro organism.

Preparation of Product:

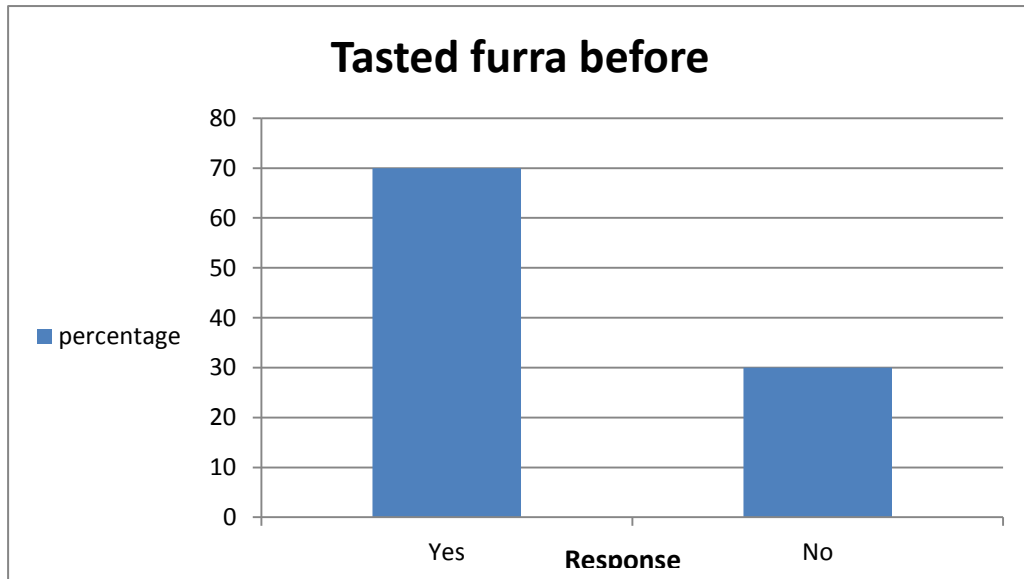
1. Millet seeds were picked and soaked two hours.
2. Remove soaked millet from water
3. Add cloves, peppercorn, pepper and ginger
4. Mill millet and spices together

Method:

1. Boil water in a deeper saucepan
2. Put moulded balls of millet bag in polythene into the boiling water
3. Allow to cook for 20 minutes
4. Pour water away and crush product into pieces
5. Add flavour to product
6. Dry in an oven at a temperature of 30°C for 34 minutes
7. Mill product together with sugar
8. Blend the product and add the powdered milk
9. Sieve and package.

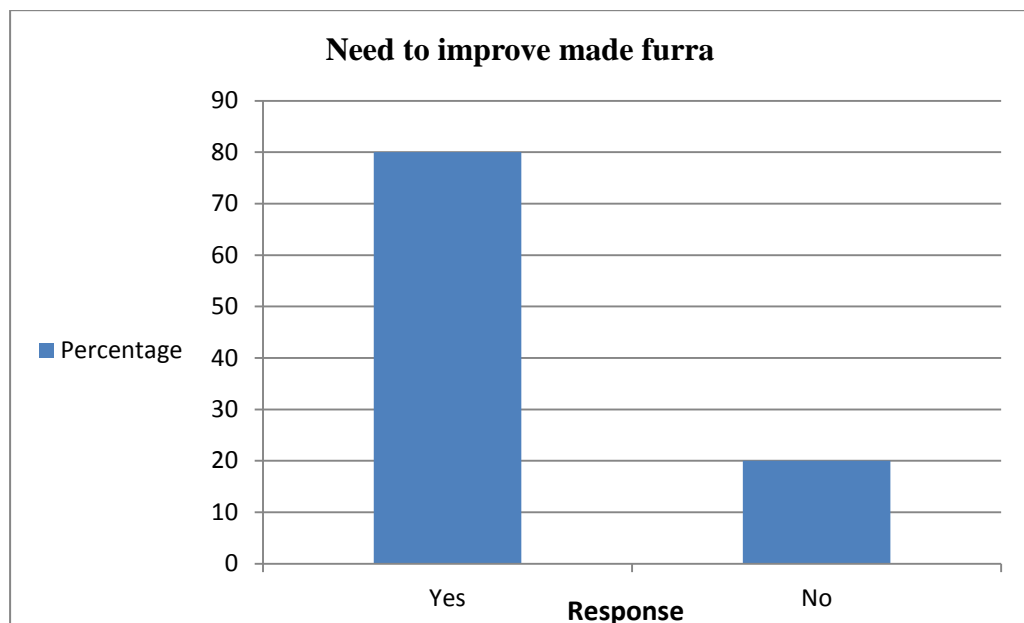
III. RESULTS AND FINDINGS

Table 1: have you tasted furra before?



It was observed that, 28 respondents representing 70% have tasted furra before whilst 12 respondents representing 30% have not. The analysis indicated that the majority of respondents have tasted furra before.

Table 2: Need to improve traditionally made furra



On the need to improve traditionally made furra, 32 respondents representing 80% are of the view that there is the need to improve the traditionally made furra, while 8 respondents representing 20% suggested it should be maintained as it is. This shows that there is the need to improve the traditionally made furra since the majority approved of that.

Likeness of the improved furra and new packaging:

Regarding the likeness of the new powdered form package furra, it was observed that 38 of respondents representing 95% like the powdered form package furra while 2 respondents representing 5% do not like the powdered form package furra. This confirms Visser, A, Lovbser, A & Swanepoel P (1992) that people like furra but owing to its poor preparation, presentation and storage, patronage is low.

Responses indicate that 38 respondents representing 95% like the powdered form package furra whilst 1 respondent representing 5% do not like the powdered form furra. The analysis indicates that the respondents appreciate the new package furra.

Colour, Flavour, Texture and Taste:

Findings indicate that, 2 respondent representing 5% is of the view that the colour is bright, 28 respondents representing 70% said the colour is dull and 10 respondents representing 25% is of the view that the colour is dark. With texture, 18 respondents representing 45% are of the view that the texture is smooth, 20 representing 50% said the texture is brittle and 2 respondents representing 5% is of the view that the texture is rough. Analysis revealed that 14 respondents representing 35% is of the view that the flavour is moderate, 14 respondents representing 35% said the flavour is mild and 12 respondents representing 30% is of the view that the flavour is sharp. The research into response on taste shows that, 16 respondents representing 40% is of the view that taste is sweet, 12 respondents representing 30% said the taste is bitter and 12 respondents representing 30% is of the view that the taste is sour.

Appearance and Acceptability:

Results of this experiment indicated that the appearance of the furra was good. Thus 6 respondents representing 15% are of the view that the appearance is excellent, 10 respondents representing 25% said the appearance is very good and 24 respondents representing 60% are of the view that the appearance is good. This confirms Guilition, J.P and Paul G.W. (1990: 30) that in developing new products for existing markets, it should meet the changing demands of the customers to suit their needs. In the terms of acceptability, 10 respondents representing 25% are of the view that, the overall acceptability is excellent; 12 respondents representing 30% said the overall acceptability is very good and 18 respondents representing 45% said it is good.

IV. CONCLUSIONS AND RECOMMENDATIONS

This study was aimed at producing a standardized recipe for the production and packaging of furra powder, that can be hygienically mixed for consumption and make it more convenient as compared to the traditionally made furra. From the several attempts made, it was found that furra powder could be a substitute or compliment the already existing traditional made furra.

Furra powder is a nutritious meal which contains essential nutrients. There is the need to create the awareness of the recipe and should be encouraged to patronise at all times as a snack, main dish or for refreshment. The standardise recipe of furra powder should be utilised by the producers of furra under a clean and hygienic conditions. The food industry can adopt this project so that awareness can be created. Further studies research can be done to ascertain its shelf life. This if done, will go a long way to help improve other existing locally manufactured products which will intend help the local economy. Again, it also be used as an income generating venture to cut down on unemployment.

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