

TRADITIONAL PREPARATIONS AND USES OF GROUNDNUT IN NIGERIA

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Abstract

Groundnut (*Arachis hypogaea* Linn.) of the family Fabaceae (Leguminosae) and sub-family Palpilionoideae is widely consumed by people worldwide. It is so popular in the northern Nigeria where there were pyramids of groundnut in the 1950s and 1960s but because of discovery of petroleum, groundnut along with some other economic crops like cocoa and palm oil trees was relegated to mere crop. About 10 different foods were identified in our investigation from the three main tribes of the country Nigeria namely Yoruba, Hausa and Ibo. The dishes are groundnut oil, kulili, yaji, sisi pelebe, donkwa, kunu geda, chin-chin, groundnut soup, roasted groundnut and cooked or boiled groundnut. The uses and preparations of the food items vary from one place to another. The important of groundnut in Nigeria cannot be over-emphasized; in some northern states it a very good ingredient in folklore. In these places, it is believed to be 'women's wealth' or 'women's treasure'. Groundnut, though nutritive it is also medicinal. Meanwhile, the uses and preparations of groundnut that were restricted to a place will be known to other people in other places.

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1. INTRODUCTION

Groundnut or peanut (*Arachis hypogaea* Linn., Palpilionoideae [Fabaceae/Leguminosae]) (Olorode, 1984; Singh, 2009) is a native of Brazil and believed to have been introduced into Africa by the Portuguese (Anyanwu *et al.*, 2001). The major groundnut producing countries in West Africa are Nigeria, Gambia, Togo, Republic of Benin, Ghana, Ivory Coast, Liberia, Chad, Niger, Senegal, Mali and Upper Volta Guinea. As at 2008/2009, Nigeria is the largest producer of groundnut in Africa and fourth in the world (USDA Foreign Agricultural Service: Table 13 Peanut Area, Yield, and Production). Nigeria, it is both a rainforest and savanna crops where the bulk in grown in latter zone than former zone (Opeke, 2006). Groundnut is a very popular crop in Nigeria; cultivated across the nation. It is well known to indigenous people and put into series of uses by various indigenous inhabitants. Groundnut is also known and called with many names

such as peanut, African nut, Chinese nut, Manila nut, Kipper nut, hawlts nut, jar nut, earth chestnut, monkey nut, goober pea, and ground bean (Johnson, 1964). In Nigeria, it has many local names such as 'epa' (Yoruba), 'Ayayaa' (Hausa), 'okpa', 'opapa', 'asibpko' (Ibo), 'omizaguo' (Owan), 'isagwe' (Benin). The popularity of groundnut in Nigeria is evidence in the famous Kano Groundnut Pyramid of 1950's and 1960's (Figure 1). According to Bashir (2013) prior to Nigeria's independence in 1960, groundnut pyramids were a success story of the agricultural sector of the northern part of the country. Discovery of petroleum in the country led to abandonment of many agricultural products among which is groundnut. This act actually affected the Nigerian economy because larger population of the country earned their living through farming. Groundnut has the highest oil content of all food crops and is second only to soybean in term of protein content (20-30%) among the

food legumes (Khan *et al.*, 2004). As a legume, it plays a huge role in feeding the world's people and animals, particularly in the third world countries, where they meet as much as two thirds of human nutritional needs. Moreover, because they can pull nitrogen out of air, they do not need much chemical fertilizers. Thus, make it a better bargain for poor farmers who cannot afford fertilizers and boon to richer ones (Khan *et al.*, 2004). A large number of food products are prepared from groundnuts namely boiled nuts, roasted nuts, salted nuts, groundnut milk, groundnut youghout, groundnut bars, groundnut butter, groundnut cheese, bakery product etc (Opeke, 2006; Vasatwiki, 2008).

There are many crops that are essential and used for various things by different people depending on locality and belief of such people. At a time, a crop may be useful for a series of things by a particular tribe; it may be useful for some other thing by other tribes. In Nigeria, groundnut is put to various finished products for human consumption and this call for diverse methods of local preparations as it is done in some localities or ethnic groups. Some of these uses and their preparations are not documented by written but are rather passed on from generation to generation only through oral means of communication. There is therefore, fear that these uses and preparation are started fading away because mostly those

who know the uses and preparations are also passing away. Earlier some similar works are written on cassava (Etejere and Bhat, 1985) and maize (AbdulRahaman and Kolawole, 2006). Thus the written of this present paper was informed by the above stated reasons. We hope that works such as this and the likes, can apart from making available various uses of groundnut to divergent people, it can as well boost agricultural production and gradual return to farming as an occupation.

2. MATERIALS AND METHODS

Three methods were used in collection and collation of data. These include oral interview of local people of different ethnic backgrounds using questionnaires (Appendix 1), field trips to some areas where groundnut is used in making porridges or dishes, and consultation of relevant literatures. Photographs of some local preparation procedures of groundnut cake and oil were took during the field trips at Lafiagi, Kwara State, Nigeria (Plate 1).

Preparations and uses

As has been said, a large number of food products are prepared from groundnut such as boiled nut, roasted nut just to mention but few. The kernel is the essential part of the crop. Its preparation and uses among different ethnic groups in Nigeria are discussed.



Figure 1: Groundnut fruits and seeds (a) and groundnut pyramid (b) near Kano taken in January 1, 1955 (sourced from www.life.com/image/2665702 and Bashir, 2013).



Plate 1: Procedures for production of groundnut cake (kulikuli) and groundnut oil (ororo) at Lafiagi, Kwara State, Nigeria

Groundnut oil

Groundnut oil or ‘ororo’ (Yoruba), ‘maiengeda’ (Hausa) is a byproduct from preparation of ‘kulikuli’ and ‘donkwa’. Groundnut oil preparation is popular among Nupe, Hausa, Yoruba and Igbo tribes in Nigeria. The method of extracting oil from groundnut kernel followed the same pattern among these four ethnic groups. Dried kernels are slightly roasted on a big earthen pot for 10 – 15 minutes depending on the quantity until it turns light brown. The bran is removed by blowing them off on a tray. A little quantity of long peppers is added to the slightly roasted kernel and pulverized or ground with a grinding machine to obtain a white paste as shown in plate 1. To the paste, two rice-spoonful of salt and little quantity of water or hot water are added as ingredients. The ingredients are then thoroughly blended with the paste. As mixing continues a small quantity of water is added at regular interval 3-4 times and the resulting combination begin to change color into light brown (Plate 1). In this state, the oil begins to be released and the resulting paste becomes hardened or solidified (Plate 1). The liquid oil extracted is poured in a container

and further addition of small quantity of salt and water are added to the solidified paste and mixing continues as usual with extra force to extract the remaining oil (Plate 1). It suffices to mention at this point that hot water should be used for the extraction of oil if the paste is left to stand till the following day. Also the addition of salt at regular interval is to ensure the resulting cake that will be obtained had a desired taste as well as to facilitate easy extraction of oil. Once desired taste had been achieved only ordinary water or hot water should be added as the case may be for the extraction oil. The oil extracted can be used as cooking oil, frying of bean cake, groundnut cake fresh beef, fish and chicken, as lubricant in local bakery etc.

Kulikuli

Production of groundnut cake ‘kulikuli’ is popular among ‘Tapa’ and Hausa tribes. These groups of people are known for their involvement in this trade. Though other tribes also do it but they are not as dedicated as ‘Tapa’ and Hausa. The byproduct obtained after oil is extracted from groundnut paste is called groundnut cake. The groundnut cake is prepared by adding water intermittently to

soften the thick groundnut paste for easy moulding into desired shapes depending on the ethnic groups. For instance, the Hausa and Yoruba people prefer the ring type (called 'kuli oloka' among Yoruba), while the Nupe prefers irregular, or straight long or circular type as shown in Plate 1. These are fried in a small frying pan containing hot oil extracted from the groundnut paste. The resulting cake obtained as shown in plate 7 is a good delicacy for drinking "gari" (cassava gruel from *Manihot esculentus* – Euphorbiaceae), eating with bread, consumed with hot and cold pap in place of bean cake. The cake can also be used as livestock feed to improve the palatability of the feed.

Yaji

'Yaji' or 'ata suya' (roasted meat pepper) is a kind of groundnut peppery powdered common among Hausa people. Groundnut seeds are ground into fine particle with ingredients such as ginger, some quantity of long pepper, a little quantity of monosodium maggi, cube maggi, small quantity of salt and pepper soup spice to obtain 'Yaji'. 'Yaji' is used to serve 'suya' or 'sere' (roasted meat) 'moin moin' (from beans, *Vigna unguiculata* – Fabaceae), rice, beans among Hausa.

Sisi pelebe or gudigudi

Dried groundnut seeds are roasted with hot-charcoal in a coal pot (popularly known as 'kolo pot' in Nigeria). The roasted nuts are spread on tray, rubbed with two palms to remove the membranous coats that are blown off afterward. The roasted nuts are crushed in a mortal with pestle into coarse particle. Granulated or cube sugar are heated in a frying-pan until it begin to dissolve and pulverized nuts are mixed with it. While still hot, the combination is quickly spread on clean tray already smeared with groundnut oil with coca cola bottle and knife is used to cut it into desired shape to obtain 'sisi pelebe' or 'gudigudi' as it is popularly known among Yoruba, Nupe and Hausa. The name 'sisi pelebe' implies slim girl to describe the shape of what can be described as groundnut bar.

Donkwa

Seeds after removing from husks would be mixed with salt and dried in the sun. Dried

seeds would be mixed with alligator pepper or red pepper, sugar and salt and ground with 'olo' (grinding stone) or grinding machine to paste. It would then be squeezed with hand during which oil is extracted. The squeezed paste would be moulded into sized which would be put inside a calabash or metal pot or plate for smoothing; this is 'donkwa'. At this stage, 'donkwa' could be eaten alone or eaten along with cold pap or hot pap. Abdulrahman and Kolawole (2006) reported that the Isha tribe does add sugar and pepper to the mixture of groundnut and maize to make 'emumu'.

Kunun geda

Kunun geda is a porridge prepared from groundnut popular among Hausa speaking people of Nigeria. Groundnut is all-round important crop which provides an avenue for making different types of foods. To prepare this porridge, dough of roasted or raw grounded groundnuts is boiled for about ten to fifteen minutes. To make porridge, one need to per-boiled rice (*Oryza sativa*) or millet (*Pennisetum purpureum*) or guinea corn (*Sorghum bicolor*) or maize (*Zea mays*) of family Poaceae is added to give it some tiny lumps and texture. The mixture is allowed to boil for 5 to 10 minutes so as to allow the grains to cook. A little sugar is added to give it a sweet taste.

Chin-chin

Grounded groundnut is used in baking chin-chin. It is used with or in lieu to magerine or butter. The dough flour is mixed with the grounded groundnut which gives the flour dough soft touch.

Groundnut soup

Groundnut soup (i.e. obe epa – Yoruba, nkatie enkuwn – Ibo, miyan yakuwa and miyan tsamiya – Hausa, omi isagwe - Benin) can be prepared in different ways depending on the tribes or localities. These are some of the ways by which it can be prepared among the three popular ethnic languages in Nigeria:

1. Yoruba

A soup is made using groundnut. It is known as 'obe epa' by Yoruba. The soup is prepared by first boiling the seeds, then ground into coarse paste. This is pour in a cooking pot and mix to

taste with pepper especially dry one, salt, maggi, pepper (*Capsicum* spp.), palm oil (from plam oil tree, *Elaeis guineensis* – Areaceae/Palmae), locust bean, fish, ‘pomo’ (a soften skin of cattle), cray fish, and small quantity of ‘ugu’ (*Telfairia occidentalis* - Cucurbitaceae). This will be stirred and allowed to boil. Addition of these ingredients at desirable the quantity will determine its taste.

2. Ibo

Preparation of nkatie enkuwn involved the use of either fresh groundnut seeds or dried one. The first step is to roast the seeds for 10-15 minutes until it turns brown. The membranous coats are removed. The cleaned seeds are ground with grinding machine until it turns to smooth paste with traces of oil on its surface. In a cooking pot containing fresh meat, sliced onion, maggi, salts and ground tomato and pepper are brought to boil for about 10 minutes. Thereafter, groundnut paste and little quantity of water are added and left to done for about 20 minutes. The resulting nkatie enkuwn can be served with banku made from maize, semovita, pounded yam (from *Dioscorea* spp. – Dioscoreaceae), fufu or akple (from cassava, *Manihot esculenta* – Euphorbiaceae) and other solid food.

3. Hausa

A groundnut soup is prepared using fresh leaves of either *Balanite egyptium*, or fresh leaves of *Tamarinda indica* or *Senna obtusifolia* L. or *Hibiscus asper*. The soup ingredients such as maggi (a condiment), salt, onion, pepper and other spices are toasted and the fresh leaves of the aforementioned is added and allowed to boil for 3 or 5 minutes. Meanwhile, the grounded groundnut is mixed with cold water into a dough-like form which is then added to the sauce and allowed to boil for another 5 to 6 minutes. The soup is eaten with ‘tuwo’ of either corn food or guinea corn food. Groundnut soup made with fresh leaves of *Hibiscus asper* or *Tamarinda indica* called ‘miyan yakuwa’ or ‘miyan tsamiya’ respectively by Hausa speaking people is best eaten with ‘brabusco’ (coarse part of ground maize) or ‘cuscus’ (which made from maize). Groundnut soup made with *Balanite aegyptium*

is best eaten with corn food (tuwo), semovita or guinea corn food. The bitterness of the fresh leaves of *Balanite egyptium* gives the soup such as appetizing taste.

Roasted groundnut

This is popular among Hausa speaking people of Nigeria. It is called ‘mandawa’ or ‘tasoyu’ by Hausa while Yoruba called it ‘epa yijan’. Dried or fresh groundnut seeds are boiled with salt and slightly dried. This is then roasted in ‘ikoko’ (an earthen pot) or frying pan with coarse sand to give it bright colour and to avoid black spots on the groundnut. At intervals the sand together with groundnut will be stirred using ‘ipako’ (or stirring stick) for proper or complete roasting of the groundnut seeds. The ‘mandawa’ or ‘epa yijan’ is now ready for consumption.

Cooked or boiled groundnut

Fresh groundnut seeds with or without pods are boiled or cooked to obtain boiled nuts which are used as small meal or local snack. This is called ‘epa sise’ by Yoruba while it is ‘defefen geda’ by Hausa. It can also be served with ‘egbo’ (made from maize, *Zea mays* - Poaceae) or ‘isoka’ a kind of food among Yoruba and Isha tribes processed from maize (Abdulrahman and Kolawole, 2006). Boiled nuts with boiled maize, boiled beans, coconut seed are sometimes giving to small children as sacrifice for twins in some tribes (Yoruba). It is believed that when such sacrifice is offered the twins will remain healthy and sound.

Roasted groundnut

It is normally prepared in a large saucer-shaped earthen pot containing sand. The sand is first heated under firewood and an air or sun dried groundnut seeds are mixed with the heated sand to bring about smooth roasting without burning of the seeds. The roasted nut can be consumed alone or with popcorn be it hard or soft type of ‘guguru’ or ‘guguru alakuko’ as often called by the Yoruba (Abdulrahman and Kolawole, 2006). It can also be consumed with roasted plantain – *Musa paradisiaca* (called “boli” among the Yoruba), as well as with garden egg – *Solanum* spp. (called ‘ikan’ in Yoruba) which is a kind of delicacy among the Igbo people of Nigeria.

Common folklores of groundnut

It is noteworthy to report here the essence of groundnut in folklore in some northern states of Nigeria. Groundnut is considered as a "woman's wealth" in Gweza, Askira Uba, Damboa, Chibok and Biu Local Government Areas of Bornu State, Nigeria. It is also considered as "a women's treasure" in Madagali, Michika and Hong Local Government Areas of Adamawa State, Nigeria. In the above mentioned areas, groundnut is mostly cultivated by women for domestic and commercial purposes. To these folklores, groundnuts, aside domestic uses, is used for marriage gift to the mother of the bride or groom. It is also used for different traditional festivals as a gift to appreciate and appeased friends and relatives.

In Gwoza Local Government Area of Bornu State, Nigeria, groundnut farm is specially kept for a fiancée that would be worked on by the fiancé. The fiancé calls on his relatives, friends and well-wishers to go and work on the groundnut farm from planting, weeding to harvesting. Youths find it funny, pleasurable, enjoying and social to go and work on groundnut farm of their friends. The ladies (the fiancée's friends and relatives) in return prepare groundnut porridge and *Sesamum indicum* (sesame or beany-seed or 'ridi' in Hausa language) tea for the men. The ladies will be singing and chanting lovely songs to the men who are happily working on the farm. The harvested groundnut is taken to the fiancée's house and considered as her wealth.

3. CONCLUSIONS

Groundnut has a great nutritional uses as revealed in the foregoing findings. Aside for being source of cooking oil, its processed products that are restricted to certain localities are also exposed for use by other ethnic groups. A noticeable example is groundnut soup (nkatie enkuwn, obe epa, miyan yakuwa, miyan

tsamiya, omi isagwe) that can make one mouth salivate by mere perceiving the aroma.

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APPENDIX 1

Questionnaire/oral interview used for collection of data

1. What is your name?
2. Which language do you speak?
3. What is your occupation?
4. What is the vernacular or local name(s) for groundnut?
5. How do you prepare this product (e.g. kulikuli, ororo, robo,)?
6. What is the main source of production of the product?