# Attitudes To Rabbit Meat And Problems Associated With It's Consumption In Sokoto Metropolis

<sup>1</sup>maigida R., <sup>2</sup>kabir M.S., <sup>3</sup>jibir M.

\*1Kebbi Agricultural and Rural Development Authority, Kebbi Nigeria
<sup>2</sup>School of Remedial and Basic Studies, Federal Polytechnic Kaura Namoda, Zamfara Nigeria
<sup>3</sup>Department of Animal Science UsmanuDanfodiyo University, Sokoto-Nigeria
\*Corresponding Author: maigida R.,

KEYWORDS: Attitude, Rabbit meat, Availability, Consumption

Date of Submission: 25-08-2018

### I. INTRODUCTION

Animal protein supply and consumption is low in Nigeria especially among the low income and nonwage earners (Iyange & Orewa, 2009). The average estimated crude protein requirement of an adult Nigerian is between 65 and 85g per person daily, 35g of which should come from animal source (Adetunji & Adepoju, 2011). Atsu, 2002, put the average consumption of animal protein at 4.5g/head/day as against the 35g/head/day. This therefore, calls for increase in livestock production to meet the demand of the populace. Meat is globally accepted, generally delicious and highly desirable by humans for both its nutrients content and taste. Meat consumption in different countries, families and individuals varies socially, economically, religiously and culturally (Ojewola & Onwuka, 2001). Some people find it difficult to eat food without meat while others desire it but cannot eat daily. Meat contains essential nutrients and can provide a variety of micronutrients that are difficult to obtain in sufficient quantities from plants. These nutrients include; vitamin A, vitamin B-12, riboflavin, calcium and zinc which are readily available in meat (Murphy & Allen, 2003). Although meat is necessary for human development, it contains some unfavorable compounds like cholesterol, fat and sodium which could be detrimental to human health. This has made some people unwilling to consume red meat in large quantities particularly beef because of the belief that it contains these substances. According to Thomas, Erlinger, Lawrence, & Appel, (2003) and Pan, Sun, & Bernstein, 2011, red meat has the potential to increase the risk of coronary heart disease because it contains high proportion of saturated fat. Rabbit meat however has been reported (Owen & Amakiri, 2010) to be a healthy alternative to beef, poultry and pork. Despite the advantages of rabbits, its production and consumption was rated sixth after beef, mutton, chevon, fish and game (Onifade, A., Obuvan, & Fabanikanda, 1999). It is felt that an understanding of attitudes in respect of rabbit meat will help in promoting its consumption and change consumer attitude towards rabbit meat products.

#### Study area

## II. MATERIALS AND METHOD

The study was carried out in Sokoto metropolis. The state is located between latitudes 12 and 13 58' N and longitudes 4 8' and 6 54' E with maximum temperature of 41°C and minimum of 13°C in April and January respectively. The major livestock in the state includes cattle, sheep, goats and poultry (Mamman, Oyenbanji, & Peter, 2000). There are many retail outlets for fresh and processed meats



Date of acceptance: 08-09-2018

# Sampling

A multistage sampling procedure was employed to obtain the information on 200 respondents. In the first stage, all the local Government Areas within sokoto metropolis were involved. In the second stage, 25 areas were purposively selected with a probability proportionate to a measure of size of each local government area. In the third stage, 8 respondents each were conveniently selected from all selected areas for the interview. (Table 1)

Table 1: Sampling Procedure				
Stage	1st Stage (LGA)	2nd Stage (Location)	3rd Stage (Respondents)	
	Sokoto North	7 Areas	56	
	Sokoto South	7 Areas	56	
	Wamakko	6 Areas	48	
	Dangeshuni	3 Areas	24	
	Kware	2 Areas	16	
Technique	Purposive	Proportionate	Convenient	
Total	5	25	200	

# **Consumer Survey**

The study purposively covered the entire sokoto metropolis, consisting of SokotoNorth, SokotoSouth, Wamakko, Dange-Shuni and Kware. The areas were selected proportionate to the local government's contribution of areas to the Metropolis. Eight Respondents were conveniently selected and interviewed from each of the selected areas as indicated in table 1 above. A total of 200 respondents were interviewed with the aid of a semi structured questionnaire and a check list to obtain their attitude for rabbit meat.

Attitudinal data was collected with the aid of a 5-point Likertscale (5, strongly agree – 1, strongly disagree) to obtain attitudes of respondents to each attitudinal statement about rabbit meat, the LikertDifferentialwas used. The Likert differential showed whether attitude was positive or negative and was obtained by subtracting the Likert response from the Likertmean. The Likert mean was obtained by summing the five points of the likert scale and dividing by 5, thus: 1+2+3+4+5=15/5=3.

Data on factors militating against rabbit consumption and how to promote consumption was analyzed using descriptive statistics.

# **III. RESULTS AND DISCUSSION**

# Attitude to Rabbit Meat

Respondents indicated a liking for rabbit meat, believing that it is healthy and taste good. They did not believe that rabbit carcass has an unattractive appearance and did not believe that rabbit meat is more palatable than other meat types. Respondents however, believed that rabbit carcasses are better presented fresh than dried, jointed than whole and skinned than singed.

Table 2: Attitudinal Responses to Rabbit Meat				
Attitudinal statement	Likert mean	Likert differential		
I like rabbit meat	4.37	1.37		
Rabbit meat tastes good	4.1	1.11		
I prefer rabbit meat to all meat types	2.79	-0.21		
Rabbit meat is more palatable than other meat types	3.02	0.02		
Consumption of rabbit meat is healthy	3.85	0.85		
Rabbit carcass looks unattractive	2.43	-0.57		
I hate rabbit meat	2.05	-0.95		
Rabbit carcasses are better presented fresh than dried	3.76	0.76		
Rabbit carcasses are better presented jointed than whole	3.81	0.81		
Rabbit carcasses are better presented skinned than singed	3.70	0.70		
I hate rabbit meat	2.05	-0.95		

That respondents like rabbit meat and declared it to taste good and palatable may be attributed to its excellent organoleptic properties of tenderness, juiciness and flavour as reported by (Zotte, et al., 2014). Tenderness, juiciness and flavour are the main quality attributes for consumer's choice of meat (Grunert, 1997). This may also be because of the nutritious nature of meat (Nistor, Bampidis, Pacala, Pantea, & Prundeanu, 2013). This is also in agreement with the findings of GFK, (2003) who compared meat from 15 commercial species of animals; rabbit meat was placed among the finest. This may be because of the meats lowest intensity of colour, odour and flavour. The negative likert differential of the statement 'I hate rabbit meat' indicates that respondents hate rabbit meat which shows that majority of the respondents like rabbit meat as indicated by the positive likert differential.

Although the respondents in the study area liked rabbit meat and declared it palatable, yet they do not prefer it to other meat types. This is probably because of their familiarity with other meats which are readily available in the market and stores than rabbit meat. This is similar to what GFK, (2003) observed that even though some Hungarians are willing to game meat, the meat was not readily available. Only hunters and their families eat game meat frequently, but most of the people are not familiar with it. So if rabbit meat were to be made readily available like other meat types, it may possibly would have been preferred.

### Factors militating against rabbit meat consumption

Tradition is one of the problems hindering consumption of rabbit meat. Others are unawareness and unattractiveness, but majority of the respondents said the meat is expensive and unavailable. Some said difficulty in processing it, availability of other meats, yet others said they don't know. See table below.

Problems	Frequency	Percentage	
Traditions	7	3.50	
Unawareness of rabbit meat	11	5.50	
Unattractive	20	10.00	
High cost (expensive)	35	17.50	
Unavailability	54	27.00	
Poor attitude	34	17.00	
Availability of other meat	1	0.50	
Difficulty in processing	1	0.50	
I don't know	23	11.50	
No problem	14	7.00	
Total	200	100	

Р

That tradition forbids consumption of rabbit meat is contrary to the findings of Dairo, Abih, &Oluwatusin, (2012), in Ekiti state that no respondent stated any special reasons either traditional or cultural against the consumption of rabbit meat. The report of Abu, Onifade, Abanikannda, &Obiyan, (2008) also said there is no known taboo against the consumption of rabbit meat in Nigeria. This is probably why only a small portion of the respondents reported as a militating factor against rabbit meat consumption.

Unawareness is one of the constraints to rabbit meat consumption in the study area. This is probably linked to the unpopularity of rabbit meat in the communities within the study area. This agrees with the findings of Suradi, (2008) and Dairo, Abih, &Oluwatusin, (2012) that unpopularity of rabbit is responsible for poor consumption of its meat. The unattractiveness as a major constraint for consumption may be linked with the notion that rabbit carcasses resemble that of a cat or human as reported by Sonandi, Masika, &VanAverberke, (1996).

Another identified problem militating against rabbit meat consumption is high cost and unavailability. Unavailability of any product can lead to high prices of that product which will consequently hinder its consumption. Tsegay, (2012) found that variation in meat consumption could be due to availability and cost. The more available a product is, the cheaper it will be.

Poor attitude to rabbit meat entails not having any special reason for not liking rabbit meat but just felt they hate it. Dairo, Abih, &Oluwatusin, (2012) in a similar study found opposite of this result. Some of the respondents in Ekiti state preferred rabbit meat to all meat types without even knowing reasons for that. Another constraint to rabbit meat consumption in the study area as observed by the respondents is availability of other meat types. This may be associated with the abundance of variety of meats like beef, mutton, chevon and poultry meat among others, which according to Agaie, Magaji, &Sofanda, (1997) account for about 52% of the meat consumed in the area. This gives the consumer an opportunity to choose the kind of meat to consume. This result is complemented by findings of Tsegay (2012), that the variation in meat consumption could be due to availability. That the meat is difficult to process agreed with the findings of Dalle (2002), that among European consumers, rabbit meat is time consuming and requires special cooking skills.

### Promotion of rabbit meat consumption

Respondents within the study area suggested that if more awareness will be created to the public about the nutritional and health attributes of rabbit meat, it's consumption may increase, while some of the respondents said making it available like other conventional meats will boost its consumption. Others still suggested that the carcass presentation should be made more attractive while others said the meat should be made cheaper. However, 9% of the respondents had no idea on how rabbit meat consumption can be promoted. See table below

Perceptions	Frequency	Percentage
Create awareness	35	15.91
Availability	103	46.82
Make it attractive	39	17.73
Make it cheap	22	10
No idea	21	9.55
Total	220*	100.00

T-11-2. D	1	C	1
<b>Table 3:</b> Perceptions of re	spondents on ways c	of promoting rappi	t meat consumption
	spondente on mayb c	i promoting racor	t meat companiption

Multiple responses\*

Majority of the respondents believe that making rabbit meat available will promote consumption. Lack of adequate consumption can be associated with unavailability because no one consumes what is not visible. This result is supported by the findings of Suradi (2008), that non availability of rabbit accounted for poor consumption of its meat. A similar case reported on duck consumption by Otecu, Igene, &Yessuf, (2006) that non-availability of duck meat is one of the constraints to its consumption in south-western Nigeria.

Respondents also think that if the general public will be enlightened about the nutritional and health benefits of rabbit meat, its consumption will increase. This may be true considering the fact that the main parameters of meat are health and nutritional related properties (Richardson-Harman, et al., 2000). Also, Jacoby, Johar, &Morrin, (1998) in a similar study reported that provision of improved information at the grassroots will increase consumption of rabbit meat.

#### **IV. CONCLUSION**

Respondents in the study area declared likeness for rabbit meat that it tastes good and it's healthy. They believe that carcasses are better presented fresh and in parts and see unavailability of rabbit meat as a major constraint to its consumption. Consequently, they believe its consumption can be promoted by making it available.

#### REFERENCES

- Abu, O. A., Onifade, A. A., Abanikannda, O. T., & Obiyan, R. I. (2008). Status and Promotional Strategy for Rabbit Production in Nigeria. In Proceedings of the 9th World Rabbit Congress, (pp. 1499-1503). Verona Italy June 10th-13th 2008.
- [2]. Adetunji, M., & Adepoju, A. (2011). Evaluation of Households Protein Consumption Pattern in Orire Local Government Area of Oyo state. International Journal of Agricultural Economics and Rural Development © IJAERD, 2011, 4(2).
- [3]. Agaie, B., Magaji, A., & Sofanda, M. (1997). Slaughter of food animal in sokoto metropolis and meat availability in Sokoto. Nigeria Journal of Basic And Applied Science,6(1), 65-70.
- [4]. Atsu, D. (2002). Contributory role of Animal Production in National Development. Proceedings of 7th Annual Conference of Animal Science Association Of Nigeria (ASSAN). September, 16-19. Abeokuta, Ogun state.
- [5]. Dairo, F. A., Abih, M., & Oluwatusin, F. M. (2012). Social acceptability of rabbit meat and strategies for improving its consumption in Ekiti State Southwestern Nigeria. Livestock Research for Rural Development 24(6).
- [6]. Dalle, Z. A. (2002). Perception of rabbit meat quality and major factors influencing the rabbit carcass and meat quality. Livestock Production Science 75(1), 11-32.
- [7]. GFK. (2003). Piackutato intezet: Vadhuspiac as Europai Unioban. AMC, Budapest.
- [8]. Grunert, K. G. (1997). What's in a steak? Across-cultured Study on Quality Perception of Beef. Food Quality and preference,8(3). 157-174.
- [9]. Iyange, C., & Orewa, S. (2009). Determinant of Daily Protein Intake among Rural and Low Income Urban Households in Nigeria. American Eurasians Journal of Scientific Research, 290-301.
- [10]. Jacoby, J., Johar, G., & Morrin, M. (1998). Consumerbehavior: Aquadrennium Annu.Rev.Psychol. 49:319-44.
- [11]. Mamman, A., Oyenbanji, J., & Peter, S. (2000). Nigeria: A people united, A future assumed Survey of states. Federal Ministry of Information, Abuja, Millinium edition. Vol. 2, Gabumo Publishing Co. Ltd. Calabar, Nigeria.
- [12]. Murphy, S., & Allen, L. (2003). The American Society for Nutritional Sciences .
- [13]. Nistor, E. V., Bampidis, N.Pacala, Pantea, M., & H.prundeanu. (2013). AnimProd. Adv. Nutrient content of Rabbit Meat As Compared to Chicken, Beef and Pork Meat, 172-176.
- [14]. Ojewola, G. S., & Onwuka, G. I. (2001). Evaluation of the Organoleptic Properties of "Suya" Produced fron various sources of meat. Nig. J.Anim. Prod. 28(2):, 199-201.
- [15]. Onifade, A. A., A., A. O., Obuvan, R. I., & Fabanikanda, O. T. (1999). Rabbit Production in Nigeria; some aspects of current status and promotional strategies. World Rabbit science, 7(2), 51-58.
- [16]. Otecu, I., Igene, J., & Yessuf, I. (2006). An Assessment of the Factors Influencing the Consumption of Duck Meat in Southern Nigeria. Pakistan Journal of Nutrition 5 (5):, 474-477.
- [17]. Owen, O., & Amakiri, A. (2010). The Potentials and Challenges of Rabbitry in Nigeria .Journal of Environmental Issues and Agriculture in Developing Countries, 2-3.
- [18]. Pan, A., Sun, Q., & Bernstein, A. M. (2011). Red meat Consumption and risk of type 2 diabetes: 3 cohorts of US adults and an updated meta-analysis. Am J Clin Nutr. 94(4):, 1088-1096.
- [19]. Richardson-Harman, N., Stevens, R., Walker, S., Gamble, J., Miller, M., & Wong, M. (2000). Mapping consumer perceptions of creaminess and liking for liquid dairy products. Food quality and preferences, 11(3), 239-246.
- [20]. Sonandi, A., Masika, P., & VanAverberke, W. (1996). Rabbit Production System in Some Area in Five Provinces of South Africa. Proceeding of the 5th World Rabbit Congress, (pp. 3:429-434). Toulouse.
- [21]. Suradi, K. (2008). Consumer Acceptability to Grilled Skewed Rabbit Meat MEKARN Workshop .Organic Rabbit Production from Forages.
- [22]. Thomas, P. M., Erlinger, J., Lawrence, & Appel. (2003, April 17). The relationship between meat intake and cardiovascular Disease. Review paper published by the John Hopkins for a livable future.

- [23]. segay, H. (2012). Consumer Perception and Preferences of Meat Types in Harare and Haramaya Province, Ethiopia. Journal of Microbiology, Biotechnology and Food Science., 2(3): 959.
- [24]. Zotte, A. D., Cullere, M., Satori, A., Szenro, Z., Kovacs, M., Giaccone, V., & Alessandro. (2014). Dietry Spirulina (Arthrospira platensis) and thyme (Thymus vulgaris). Supplementation to growing rabbits; Effects on raw and cooked meat quality, Nutrient true retention and oxidative stability.

maigida R., "Attitudes To Rabbit Meat And Problems Associated With It's Consumption In Sokoto Metropolis "The International Journal of Engineering and Science (IJES) 7.9 (2018): 08-12

\_\_\_\_\_