# Consumer Perception and Preference for Meat Types in Ogbomoso area of Oyo State, Nigeria.

Akinwumi<sup>1</sup> A.O., Odunsi<sup>1</sup> A.A., Omojola<sup>4</sup> A.B., Aworemi<sup>3</sup> J. R, and Aderinola<sup>2</sup>, O.A.,

- 1. Department of Animal Nutrition and Biotechnology, 2. Department of Animal Production and Health,
- 3. Department of Management Science, Ladoke Akintola University of Technology, Ogbomoso.
- 4. Meat Science Laboratory, Animal Science Department, University of Ibadan, Ibadan.

#### **Abstract**

Two hundred and six (206) respondents in Ogbomoso (a university community) in Oyo state Nigeria were randomly selected through structured questionnaires to examine their perception and preference of meat and meat products. Data collected were analyzed through the use of descriptive statistical tools. The results showed that marketing activities should be centered on female who are mostly married (83.0%) within the age group 31-40 since women are the one to purchase the meat at home, although men (56.8%) responded to the questionnaire than their female (43.2%) counterpart. It was clearly shown that respondents eat beef meat the most but enjoyed chicken the most, while availability and taste were major factors that influenced decision on the meat types of preference. Consumers preferred a designated meat shop as against the conventional abattoir and general market to purchase meat. Greater number of respondents however showed their preference in eating meat at home than outside. Beef, was the most affordable (54.9%), preferred at ceremony (69.4%) and the most convenient (55.3%). Chicken (32.3%) and Turkey (36.3%) are most preferred for picnic. Chevon (35.4%) was the most nutritious while chicken (27.7%) and beef (23.3%) were the most preferred as fast to cook meat. The study clearly revealed the importance of meat to the respondents in Ogbomoso.

### Keywords: meat, preference, consumer, protein, quality

### Introduction

Meat is any flesh of animal that is used for food. It is nutritious and highly attractive in appearance. There different kinds of meat depending on the source from which they are obtained, for example, mutton from sheep, chevon from goat, beef from cattle, pork from pig and chicken from birds (Soniran and Okunbanjo, 2002). These various meat types vary in their chemical composition. Meat is clearly preferred to fish because consumers perceive it as being richer in

protein, more appetizing, nutritious and enjoyed more by children (Eyo, 1995). In

particular, meat is essential in man's diet and is an excellent source of essential amino acids, vitamins and minerals, (CAST, 1997). A daily intake of 100 g of meat and liver can supply up to 50% of the recommended daily allowance for iron, zinc, selenium, vitamins  $B_1$ ,  $B_2$ ,  $B_6$ ,  $B_{12}$  and 100% of vitamin A (Biesalski and Nohr, 2009). The importance of meat as an essential source of some micronutrients is

due to the fact that they have a higher bioavailability and can hardly be compensated for by plant-derived provitamins (Biesalski, 2005).

In many developing countries, especially Nigeria meat widely is consumed as a source of protein; it is either eaten cooked or processed into other forms to avoid associated spoilage (Olaoye and Onilude, 2010). Most consumers purchase meat daily in small loafs of 2kg or less or in sufficient quantity for one family meal preparation. The middle class house wives obtained their meat pre-rigor in large lots for eventual storage by chilling and freezing (Okubanjo, 1990).

Preferential consumption exists in spite of the importance of meat as a source of protein with high biological value. Several authors (Burton and Young, 1992; Koppertt and Hladik, 1990) agreed that factors that affect the consumption of meat can be classified as economic, social and cultural factors, while Ojewola Onwuka, (2001) specifically highlighted religious, age, sex, socio-economic factors, individual variation and income as major factors in Nigeria. For instance, pork is unpopular in the Moslem northern part of the country (Ikeme, 1990), chevon is popular among the Ibos in the South- East (Obanu, 1975), while cow meat and chicken appear to predominate all over Nigeria.

In meats and meat products, the sensory, health related and nutritional properties are the most important product parameters (Richardson *et al.*, 1994) However, for most consumers of meat products, the way the products taste and look (i.e., the sensory properties) are the

most important motivators for preferring and purchasing a meat product (Price and Schweigert, 1971)

Studies about consumers' preference are appreciated by the food industry since they can explain consumers' decisions (Verbeke and Vackier, 2004) and should be considered when commercial policies are designed (Diez, *et al*, 2006)

This present study however aimed at evaluating the consumer perception and preference of meat types in a University metropolis like Ogbomoso.

### Methodology

The study was conducted in Ogbomoso town, Oyo state in Nigeria. It is an area of mixed culture with an appreciable standard of living because of the location of a university (Ladoke Akintola University of Technology). LAUTECH was established by the old Oyo state in 1990 and presently run by Oyo and Osun state governments in Nigeria. Both students and staff cohabit within Ogbomoso community. The staff strength is over 2000 comprising of Academic Staff and Non Academic Staff.

Two hundred and six (206)respondents were sampled using simple random sampling techniques interviewed through structural questionnaire and personal contact. The data collected included personal profile of the respondents, meat consumption level in the study area, relative importance of meat to respondents, preference to various types of meat, and their perception and expectations to various meat types.

Data collected were analyzed through the use of descriptive statistical tools (SPSS, 2006) to generate tables, means and cumulative frequency while excel software package was used to generate the graphs.

### Results and Discussion Personal profile of the respondents

The personal profile of the respondents is shown in Table 1. The report showed more of male 117 (56.8%) responding to the questionnaire than female 89 (43.2%); 83.0% were married while 17.5% were not married. However, 17.0%, 49.5%, 27.7% and 5.9% were within the age 20-30, 31-40, 41-50 and 51-60 years old respectively. As for their educational level, 7.8% had secondary school certificate, 17.5% had OND, while 23.2% had HND/BSC, those with M.SC /MBA and Ph.D certificates were 36.4% and 13.6% respectively, those with other certificates were 1.5%. Table 1 revealed that male respondents were predominantly receptive the questionnaire than female their

counterparts. This was in line with Eyo (2007)who reported more male respondents (57.06%) than female (32.94%) in his study of consumer's preference for meat but in contrast with Diez et al., 2006 that reported more female. Eyo (2007) also reported that most of them were married just as revealed in this work. This result could be justified since this is a university environment, where we have more male than female in the work force. Based on the report, we have more of 31-40 years age group indicating that young men and women are disposed to meat consumption than the old (Diez et al., 2006). This result showed a decline of meat consumption as the age increases except for age 21-30 years. Literacy level of the respondents revealed that most are indeed educated hence should know much about the importance of meat consumption.

Table 1 Personal profile of the respondents

1 abi	e i Fersonai	prome of the f	espondents		
S/N	Characteristics	eristics		Percentage	
1.	Gender	Male	117	56.8	
		Female	89	43.2	
			206	100	
2.	Marital status	Single	35	17.0	
		Married	171	83.0	
			206	100	
3.	Age	20-30	36	17.5	
	-	31-40	102	49.5	
		41-50	57	27.7	
		51-60	11	5.3	
			206	100	
4.	Educational level	Secondary	16	7.8	
		OND	36	17.5	
		HND/B.Sc	48	23.2	
		M.Sc/MBA	75	36.4	
		PHD	28	13.6	
		Others	3	1.5	
			206	100	

## **Meat Consumption Level of the respondents**

This work revealed that almost all the respondents consume meat in one form or the other and has shown the indispensable nature of meat and its importance to man. Figure 1 showed the importance of meat. 50.5% respondents showed that meat consumption is very important to them while 40.8% and 8.7% indicated somehow important and not so important respectively. This agreed with Twigg (1984) and Douglas and Nicod (1974) which have all shown that meat is

the food with the highest status in the hierarchy of food and that it is the center of meal. According to Eyo (1995), meat is clearly preferred to fish because consumers perceive it as being richer in protein, more appetizing, nutritious and enjoyed more by children. There is therefore a ready market for meat. This report also validates the importance of meat in man's diet as excellent source of essential amino acids, vitamins and minerals (CAST, 1997; Biesalski and Nohr, 2009; Biesalski, 2005).

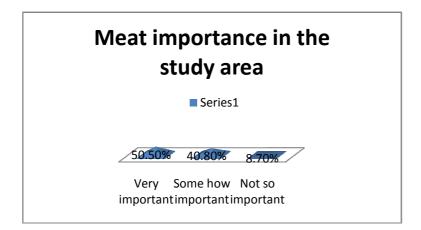


Figure 1. Importance of meat in Ogbomoso area of Oyo State.

# Respondents' preference to various meat types

Table 2 showed the preference to various meat types by the respondents. Preference for beef was the highest with 79.1% while the least was found for pork with 1.5% with no response for turkey, bush meat and rabbit meat. Chicken was ranked highest (35.4%) in term of enjoyment followed by goat meat, (22.8), beef (17.0) and turkey (18.4) meat in that order. Most respondents 79.1% indicated that beef was the most bought meat type while 57.8% of them also indicated that beef was their family choice. 51.5% showed that pork is the meat with the most unacceptable visible fat while 34.5 the highest indicated that rabbit meat was the meat with the most acceptable visible fat. The highest percentage for meat with most appealing colour was the found in beef (38.8%). The easiest to cut meat is chicken with 45.2% followed by beef (26.7%).

The observations in this study were similar to the report of Eyo (2007) that beef is the most eaten, bought and preferred by the family. This may be due to the fact that beef is the most affordable

and available meat. FAO (2006) also supported that beef accounts for about 50% of the total meat consumption in Nigeria, while Nwakpu and Ugwu (2004) and Odo et al., (2004) gave religious and socio cultural taboos as factors that affect the consumption of pork which is also low in this study. It was however followed by chevon, pork and game meat respectively while chicken was next to beef. Moreso, the respondents considered goat meat as the meat they like most and nutritional factor was a major reason for that. determines Appearance consumers of perception meat quality significantly influences purchasing behaviour. Respondents indicated that pig has the most unacceptable fat while rabbit meat has the highest. Ferradwz et al (1999) demonstrated that increased level of intra muscular fat in meat could have a detrimental effect on meat acceptability by consumer. Chicken meat is the highest for easy to cut meat this was not in agreement with Eyo (2007) who reported goat as consumer choice. However in the study area consumer demand for chicken was due to ease of cut and processing.

Table 2. Preference of respondents to various types of meat (%)

	Be ef	Chevon	Mutton	Pork	Chicken	Bush meat	Rabbit meat	Turkey meat
<del></del>						meat	meat	
1. Eat most	79.1	5.3	-	1.5	14.1	-	-	-
2. Like most	17.0	22.8	-	1.0	35.4	3.9	1.5	18.4
3. Buy most	79.1	4.4	-	-	15.0	-	-	1.5
4. Family preference	57.8	5.3	-	1.5	25.2	1.5	-	8.7
5.Unacceptable fat	28.2	6.3	1.9	51.1	8.7	8.7	-	3.4
<ol><li>Acceptable fats</li></ol>	31.6	5.8	1.5	1.0	14.6	-	34.5	11.2
7. Most appealing	38.8	8.3	-	1.5	25.2	5.8	1.5	18.0
colour								
8. Easy to cut	26.7	5.8	1.9	1.91	45.2	0	5.8	12.6

### Respondents Preference for Meat Shopping

Figure 2, showed the present place of meat shopping among the respondents. 52 respondents visited abattoir, 66 visited general market while 35 and respondents usually buy their meat from a designated meat shop and at home from hawkers respectively. But the respondents also gave a better place of shopping for meat where designated meat shop (98) was ranked highest followed by Abattoir (57) and general market (49). A drift from the conventional way of purchasing meat was indicated in figure 2. Although abattoir and general market are the major shopping points, but consumers at the study area showed their preference in getting it at a designated meat shop. Better standard of living and changing lifestyles has led to the shift towards more convenience in getting meat for food preparation. Therefore meat seller with a shop will have more returns in this area.

### **Purchase of meat at Home**

Figure 3 indicated the buyer of meat at home as house wives, husbands, children, and house helps in that order. As

clearly shown in the figure, marketing strategies need to center on women (houses wives) since they are the one buying the meat for family consumption. The strategies to be adopted must be the one that will attract women to purchase meat in the study area.

# Respondent's preference for places of meat consumption

Figure 4 showed consumption place for meat. Highest numbers of the respondents eat meat at home followed by those who eat at either restaurant or bukataria while 6 respondents eat meat at relaxation center. 10 respondents however indicated suya spot as consumption place for meat while six (6) respondents indicated more than one places. Greater number of the respondents showed their preference in eating meat at home above others. That means they were bought in the market and cooked at home. Here, the marketing strategies to be adopted should be directed to fresh meat and not processed or cooked meat served at bukataria and suya / relaxation center.

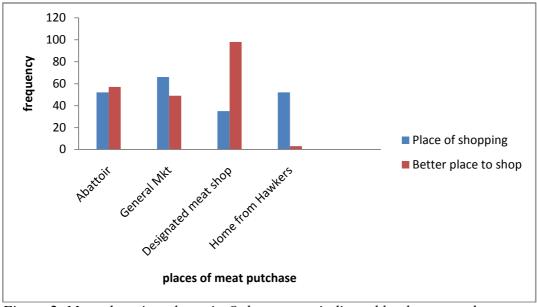


Figure 2. Meat shopping places in Ogbomoso as indicated by the respondents

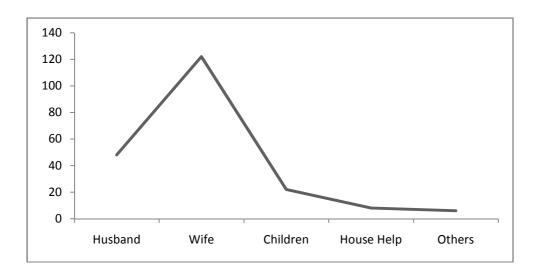


Figure 3: Buyers of meat within Ogbomoso as indicated by the respondents

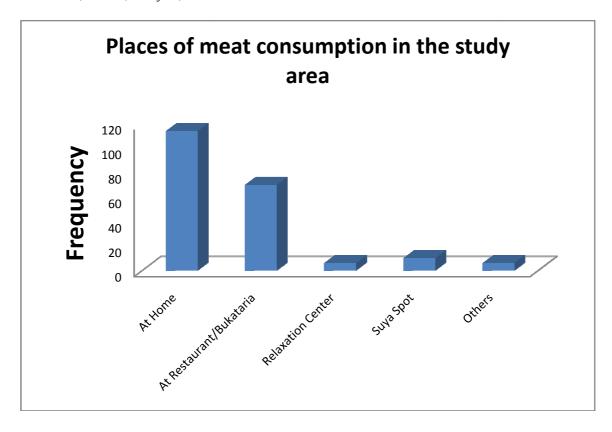


Figure 4: Places of meat consumption in Ogbomoso as revealed by the respondents

### Repondents' Perception To Various Meat Type At The Study Area

Table 3 revealed the perception of respondents to various meat types. Beef ranked highest based on taste (40.3%) followed by chevon (19.9), turkey (19.9) chicken (17.5%) and mutton (2.4%). Beef was the most affordable meat (54.9%) while bush meat (6.9) was found to be the least because of the high cost and nonavailability. The respondents however found chevon (35.4%), bush (22.8%), turkey (15.5%) chicken (13.1%) pork (6.8%), beef (4.4%) and rabbit (2.0%) to be nutritious in that order. Chicken was ranked highest as fast to cook meat. Beef remained meat preferred at ceremonies and most convenient while turkey (36.3%) and chicken (32.3%) are most preferred for picnic. Eyo (2007) reported that chevon was considered to be more nutritious, taste better, cooks faster even though less available, more costly and so not suitable for ceremonial cooking. However, he also confirmed that beef was preferred to chevon because its products are perceived to be affordable, readily available and better for ceremonial use thus concluding that beef is clearly preferred to other meat types in terms of all the attributes considered.

	Beef	Chevon	Mutton	Pork	Chicken	Bush	Rabbit	Turkey
						meat		
1.Tastegood	40.3	19.9	2.4	-	17.5	-	-	19.9
2.Affordable	54.9	9.7	-	8.7	12.6	69	-	8.3
3. Nutritious	4.4	35.4	-	6.8	22.8	13.1	2.0	15.5
in value								
4. Fast to cook	23.3	16.0	1.5	2.9	27.7	4.4	12.6	11.7
5. Preferred at ceremonies	69.4	11.7	1.5	1.5	11.2	1.5	-	3.4
6. Preferred at picnic	16.8	7.8	6.8	-	32.3	-	-	36.3
7. Most convenient	55.3	8.7	1.5	1.0	30.6	-	-	2.9

**Table 3: Perception of LAUTECH Staff to various types of meat (%)** 

#### Conclusion

It could be concluded based on this study that beef remained most eaten, affordable, preferred at ceremony and the most convenient among others. Cattle trading and slaughter will be a good venture in this community. Marketing activities should be centered more on women since they are mostly involved in the purchase and cooking of meat at home. Modern meat shop is also recommended as the respondents had signified their growing expectation for designated centers for the preferred purchase of meat types. Livestock producers should intensify production of cattle, poultry, goat and sheep in this area since there are ready market for these animal products.

#### References

**Biesalski, H. K.** (2005). Meat as a component of a healthy diet – are there any risks or benefits if meat is

avoided in the diet? Meat Science 70: 509–524.

Biesalski, H. K. and Nohr, D. (2009). The nutritional quality of meat. In: J.P. Kerry and D. Ledward (eds). Improving the sensory and nutritional quality of fresh meat, 1st edn. Cambridge: Woodhead Publishing Ltd, England.

Burton, M. and Young, T. (1992): The structure of changing taste for meat and fish in Great Britain. European Review of Agricultural Economics Journal, 19(2): 165 - 180

Council for Agriculture Science and Technology, (CAST) (1997): "Contributions of Animal Products to Healthful Diets" CAST Task Force Report, 1997.

Diez, J., Del Coz, J.J., Bahamonde, A San udo, Olleta, J.L., Macie, S., Campo. M.M., Panea B., and P., Alberti (2006). Identifying market

- segments in beef: Breed, slaughter weight and ageing time implications. *Meat science 74: 667-675*.
- Douglas, M. and Nicod, M. (1974). Taking the biscuit: The structure of British meals. *New Society 19, 744-747.*
- **Eyo, E.O.** (1995). "Consumer Attitude towards native foodstuff in Akwa Ibom State". *Ibom Journal of Social Issues* 2 (1), 21-23.
- Eyo, E.O. (2007). Consumers' preference for meat from food animals in the Niger Delta, Nigeria. *Nig. J. Anim. Prod.* 34 (1): 113-120.
- Fernandez, X., Monin, G., Talmant, A., Mourot, J., and Lebret, B. (1999). Influence of intramuscular fat on the quality of pigmeat— 2. Consumer acceptability of muscle longissimus lumborum. *Meat Science*, 53(1), 67–72.
- **Ikeme, A.I.** (1990). Meat Science and Technology: A comprehensive approach. African FEP Publishers Ltd. P. 2, 29-65. Onitsha, Nigeria.
- Koppert, G and Hladik, G.C.M. (1990):

  Measuring Food Consumption. In
  (Food and Nutrition in the African
  Rain Forest Ed. by C.M. Hladik, S.
  Bahuchet and I. De Garine,
  UNESCO/NAB paris)
- Nwakpu, P. E and Ugwu, L. L. C. (2004). Contribution of pork to meat supply in Ebonyi State, Nigeria. Proc. Of the 9<sup>th</sup> Annual Conf. Anim. Sci. Ass. Nig. (ASAN). 13<sup>th</sup> -16<sup>th</sup> September. Pp. 211-213

- **Obanu, Z.A.** (1975). A survey of meat and meat preferences of the Ibos of East central state. *Nig. J. Sci. food and Agric.* 26: 903-908.
- Odo, B. I., Marire, B. N., Alaku, S. O., Akpa, M. O., Nwosu, D.C. and Anikwe, M. A. (2004). Pig meat consumption in Enugu Metropolis. Proc. Of the 9<sup>th</sup> Annual Conf. Anim. Sci. Ass. Nig. (ASAN). 13<sup>th</sup> -16<sup>th</sup> September. Pp. 211-213.
- Ojewola, G.S. and Onwuka, G. I. (2001). Evaluation of the organoleptic properties of "suya" produced from various sources of meat. *Nig. J. Anim. Prod.* 28 (2): 199-201.
- Okubanjo, A. O. (1990). Meat for Nigeria's millions. Faculty lecture series, No 3. Pg. 13. Faculty of Agriculture and Forestry, University of Ibadan, Ibadan.
- Olaoye, O.A. and Onilude, A.A. (2010). Investigation on the potential use of biological agents in extension of fresh beef in Nigeria. World Journal of Microbiology and Biotechnology 26; 1445-1454, DOI; 10.1007/s11274-010-0319-5.
- Price, J. F and Schweigert, B. S. (1971):

  The science of meat and meat products.2<sup>nd</sup> Edition Freeman, W.H and Coy. San Francisco, U.S.A.
- Richardson, N.J., Shepherd, R. and Elliman, N. (1994). Meat consumption, definition of meat and trust in informationsources in the U.K. population and members of the vegetarian society. Ecology of Food and Nutrition 33, 1-13.

- Soniran O.G., and A.O. Okubanjo (2002). Physico- chemical and sensory characteristics of pork loin roast cooked to three internal temperatures. *Nig. J. Anim. Prod.* 29 (1): 138-141.
- Statistical Package for Social Science (SPSS) (2006). 15 versions. SPSS user's guide.
- **Twigg, J.** (1984). Vegetarianism and the meanings of meat. In Murcott, A. (Ed.), The sociology of food and eating. Pp. 18-30. Aldershot: Gower Publishing.
- Verbeke, W., and Vackier, I. (2004).

  Profile and effects of consumer involvement in fresh meat. *Meat Science*, 67, 159–168.