ISSN 0189-0514
J. Anim. Prod. Res. (2017) 29(2):264-271

National Animal Production Research Institute
Ahmadu Bello University
P.M.B 1096, Shika-Zaria,
Kaduna State, Nigeria.
Email:japr@napri.gov.ng Url:journals.napri.gov.ng

INFLUENCE OF SOCIO-ECONOMIC CHARACTERISTICS ON THE CONSUMPTION OF POULTRY PRODUCTS IN PLATEAU STATE

[1]Ojo, O. A., [2]Dung, J. and [1]Iyiola-Tunji, A. O.
[1]National Agricultural Extension and Research Liaison Services, Ahmadu Bello University, Zaria, Nigeria.
[2]Department of Animal Science, Ahmadu Bello University, Zaria, Nigeria.
Corresponding Authors E-mail: Kemiojo20@gmail.com Phone: 09098619409

ABSTRACT

This study examined the socio-economic characteristics of consumers of poultry products, their pattern of consumption as well as the influence of these characteristics on the consumption of poultry products in Plateau State. A two-stage sampling technique was used to select the respondents for the study. Primary data were collected with the aid of structured questionnaire and analyzed using descriptive statistics. The results obtained revealed that majority of the respondents were males (59.3%) within the age bracket of 27-36 years (54.5%). Most of them were single (78%) with tertiary education (89.8%) and household size of 1-5 (47.5%) and their primary occupation was business (40.7%).From the results, most of the respondents consume broiler chickens (44.4%) followed by Layers (30.5%) and Local chicken (11.9). Also, majority of the respondents consumed both eggs and meat (89.8%) most (86.4%) of the respondents purchased fresh eggs and (33.9%) consumed the eggs weekly, while (25.4%) consumed eggs bi-weekly and (20.3%) consumed eggs daily. Most (78.0%) purchased live birds, while (10.2%) purchased it as fried chicken meat and (6.8%) purchased their meat frozen. The result also revealed that household size, education and occupation did not significantly influence the consumption of poultry products. Also, it revealed that the major constraint (42%) to consumption was the high cost of the product. This study therefore recommends that stabilization of prices of poultry products by the government will encourage consumers to purchase more poultry products.

Key words: Poultry products, Socio-economic characteristics of consumers

INTRODUCTION

The livestock sector in Nigeria contributes significantly to the agricultural economy as it provides animal protein to the populace as well as employment opportunities to a large number of people (Oyesola and Olujide,2000).The poultry subsector is a significant industry throughout the world (Yilmaz *et al.*, 2013). Poultry production is one of the fastest ways of obtaining animal protein within a short period because of its short generation interval (Adedeji *et al*., 2014). Guinea fowl, turkey, pigeon and more recently ostrich are commonly reared birds in Nigeria. However, chicken is the most commercialized (Daniel Ugwu, 2009).Poultry has high economic value, short generation interval and short return on investment. Hence it is possible to obtain table weight for broiler chicken within 6-8 weeks and first egg within eighteen (18) weeks of production (Okoli *et al*., 2004).

FAO (2009) reported that the world average per capita consumption of poultry meat has nearly quadrupled since the 1960's (11kg in 2003 compared with 3kg in 1963). The Nigerian poultry industry has been expanding rapidly over the years from 185,300MT in 2001 to 268,000MT in 2011. However, the

production and consumption of this product is low compared to developed countries of the world (FAO, 2011).

The ban on importation of frozen chicken and turkey by the Federal Government of Nigeria has encouraged large scale production as well as consumption of live poultry products

(Okoli *et al*., 2004).The demand for animal products according to Delgado *et al*. (1998) is influenced by improvements in personal income, population growth and increased urbanization. Hai *et al*. (2008) reported that increased literacy, increased income as well as awareness on issues of human health and nutrition should increase the per capita poultry product consumption.

According to Adu *et al*. (1996), poultry ranks fourth among sources of animal protein for human consumption in Nigeria and it contributes about 10% of the national meat production. Poultry is a rich source of white meat which is much healthy to consume than the red meat of cattle, sheep and goats (Gueye, 2002). White meat has higher proportion of saturated fatty acids than the unsaturated fatty acids of red meat. In addition poultry meat does not contain the trans-fats that contributes to coronary heart disease (Gueye, 2002).

Despite these advantages of poultry products, information regarding urban poultry product consumption, socio-economic characteristics of consumers as well as constraints to consumption of poultry products in Nigeria is very scanty. More emphasis has been placed on poultry production over the years by many researchers. Studies on the consumption pattern of poultry products, livelihood of consumers as well as constraints to consumption of poultry products in Nigeria will provide useful information to poultry farmers and other stakeholders involved in poultry product enterprises.

The objectives of this study are to:

i. Identify the socio-economic characteristics of consumers of poultry products.
ii. Identify the consumption pattern of poultry products.
iii. Determine the influence of socio-economic characteristics on consumption of poultry products.
iv. Identify the constraints to the consumption of poultry products in Plateau state.

MATERIALS AND METHODS

Study area

This study covered Jos South and Barkin Ladi Local Government Areas of Plateau State where there is high consumption of poultry products. Jos South has a latitude of 9^{o}48”00”N and 8^{o} 52 “00”E and a population size of 306,766 as at 2006 census. Barkin Ladi is located on latitude 9^{o}32”00”N 8^{o} 54”00”E, with a population size of 175,267 as at 2006 census (Makama, 2006).

Data collection

Data was collected with the aid of well-structured questionnaires in Barkin Ladi and Jos South local government areas of Plateau state Nigeria. The information collected included; socio-economic characteristics of consumers of poultry products, consumption pattern as well as the constraints to consumption of poultry products.

Sampling technique

A two-stage sampling technique was used for this study. Three wards were randomly selected from each Local Government, followed by a random selection of 10 households from each selected ward, making a total of 60 respondents out of which only 59 questionnaires were retrieved.

Data analysis

Descriptive statistics was used to analyze the socio-economic characteristics of respondents

as well as the constraints to consumption of poultry products. The general linear model of (SAS, 2002) was used to analyze the influence of some of the socio-economic characteristics on the consumption pattern of respondents. The means were separated using Duncan multiple range test (Duncan, 1955)

RESULTS AND DISCUSSION

Table 1 shows the socio-economic characteristics of consumers of poultry products. From the result, majority (54.2%) of the consumers were within the age bracket of 27-36 years, while 22.0% of the consumers are within the age bracket of 16-26 years.

The results of Table 1 also showed that majority (78.0%) of the consumers are single, it also revealed that those with smaller household sizes (1-5) consumed more poultry products 47.5% followed by those within household size of 6-10. Males consumed more (59.3%) poultry products than their female counterparts (40.7%). Respondents who had tertiary education were the highest consumers of poultry products (89.8%), followed by those who had secondary school education while those involved in business consumed more poultry products (40.7%) compared to other occupations. According to Abdullah *et al*. (2011), urbanization and income improvement are the main drivers of increased demand for foods of animal origin in developing countries such as Nigeria.

Table 2 shows the consumption characteristics of respondents. Most of the respondents consume broiler chickens (44.4%) followed by layers (30.5%) and local chicken (11.9). Also, majority of the respondents consumed both eggs and meat (89.8%), most (86.4%) of the respondents purchased fresh eggs and 33.9% consumed the eggs weekly, while (25.4%) consumed eggs bi-weekly and 20.3% consumed eggs daily. According to Aboki *et al*. (2013) eggs are more affordable for the common man than other sources of animal protein. From the results, 37.3% of the respondents consumed poultry meat weekly, while 28.8% consumed it monthly and 15.3% consumed poultry meat bi-weekly. Most of the respondents (78.0%) purchased live birds, while 10.2% purchased it fried and 6.8%purchased their meat frozen. These results are in agreement with Abdullah *et al*. (2011) who stated that the demand for foods of animal origin is on the increase due to population growth.

The influence of household size on consumption of poultry products are revealed in Table 3. There was no significant influence of household size on egg consumption, meat consumption and frequency of consumption of chicken eggs. However, respondents with a household size of (1-5) had the highest egg and chicken consumption as well as the highest frequency of consumption of chicken eggs. This implies that economic resources were more sufficient to meet animal protein demands of families with small household size. This result concurs with the findings of Hai *et al*. (2008) who reported that smaller households consumed more eggs and meat than those with large house hold size.

Table 4 shows the influence of education on consumption of poultry products. Respondents who had tertiary education had the highest egg consumption as well as the highest frequency of consumption of chicken eggs. According to Mozumber *et al*.(2009), increased knowledge on nutrition and purchasing ability influence the consumption of poultry products.

The influence of primary occupation on consumption of poultry products is revealed in Table 5. There was no significant influence of primary occupation on egg consumption, meat consumption as well as frequency of consumption of chicken eggs. From the table, it was observed that traders/ business people consumed more of chicken meat. However, civil servants had the highest egg consumption, while farmers had the highest frequency of

consumption of chicken eggs. This result is in agreement with the report of Yilmaz *et al*. (2013) who stated that consumer's awareness on the need for animal protein and tendency to maintain a healthy and balanced diet have encouraged the consumption of poultry products irrespective of occupation.

Figure 1 shows the constraints to the consumption of poultry products in Jos, Plateau state. High cost of poultry product was a major constraint to the consumption (72.9%), followed by residual effects of antibiotics (13.6 %), scarcity of products (5.1 %) and poor storage (3.4 %). The high cost of chicken meat and eggs may have resulted from the rising prices of feed ingredients, labour, medication and transportation of products.

Table 1: Socio-Economic Characteristics of Consumers of Poultry Products

Parameters	Frequency	Percentage %
Age		
16-26	32	22.0
27-36	13	54.2
37-46	5	8.5
47-56	5	8.5
57-66	4	6.8
Total	59	100
Marital Status		
Single	46	78.0
Married	13	22.0
Total	59	100.0
Household Size		
1-5	28	47.5
6-10	27	45.8
11 and above	3	5.1
Total	58	98.4
Gender		
Male	35	59.3
Female	24	40.7
Total	59	100.0
Educational Level		
Primary Education	2	3.1
Secondary Education	4	6.8
Tertiary Education	53	89.8
Total	59	100.0
Primary Occupation		
Farming	23	39.0
Civil servant	1	20.3
Business	24	40.7
Total	59	100.0

Table 2: Consumption Pattern of Respondents

Type of Poultry Consumed	Frequency	Percentage %
Broiler	26	44.1
Layer	18	30.5
Local Chicken	7	11.9
Turkey	2	3.4
Broiler and Local chicken	3	5.1
Broiler and Turkey	1	1.7
All of the above	2	3.4
Total	59	100.0
Type of Poultry product consumed		
Meat	1	1.7
Egg	5	8.5
Both egg and meat	53	89.8
Total	59	100
Frequency of egg consumed		
Daily	12	20.3
Weekly	20	33.9
Bi-weekly	15	25.4
Monthly	10	16.9
Quarterly	2	3.4
Total	59	100.0
Form of purchase of poultry meat		
Live	46	78.0
Frozen	4	6.8
Roasted	2	3.4
Fried	6	10.2
Live and Frozen	1	1.7
Total	59	100.0
Frequency of meat consumption		
Daily	2	3.4
Weekly	22	37.3
Bi-weekly	9	15.3
Monthly	17	28.8
Quarterly	9	15.3
Total	59	100.0
Nature of egg purchased		
Fresh uncooked	51	86.4
Boiled	8	13.6
Total	59	100.0

Table 3: Influence of Household size on consumption of poultry products

Consumption Parameters	1-5	6-10	11-and above	Overall mean	SEM	P Value
Egg consumption	2.92±0.055	2.889±0.062	2.000±1.000	2.879	0.04967	3.357
Chicken consumption	2.482±0.401	2.280±0.344	1.000±0.000	2.276	0.24198	0.507
Frequency of consumption	2.482±0.222	2.482±0.222	2.000±1.000	2.500	0.1460	0.300

Table 4. Influence of Educational qualification on consumption of poultry products

Consumption Parameters	Primary Education	Secondary Education	Tertiary Education	Overall mean	SEM	P Value
Egg consumption	2.500±0.500	2.750±0.250	2.906±0.0487	2.881	0.0489	0.253
Chicken consumption	2.151±0.240	2.50±0.500	3.000±1.56	2.254	0.2389	0.365
Frequency of Consumption	2.250±0.479	2.482±0.240	3.000±0.000	2.254	0.2389	0.365

Table 5. Influence of Primary Occupation on consumption of poultry products

Consumption Parameters	Farming	Civil Servant	Business	Overall mean	SEM	P Value
Egg consumption	2.818±0.084	2.917±0.833	2.895±0.105	2.881	0.049	0.862
Chicken consumption	2.136±0.239	1.667±0.595	2.368±0.244	2.254	0.239	0.170
Frequency of consumption	2.818±0.243	2.250±0.305	2.368±0.244	2.492	0.144	0.159

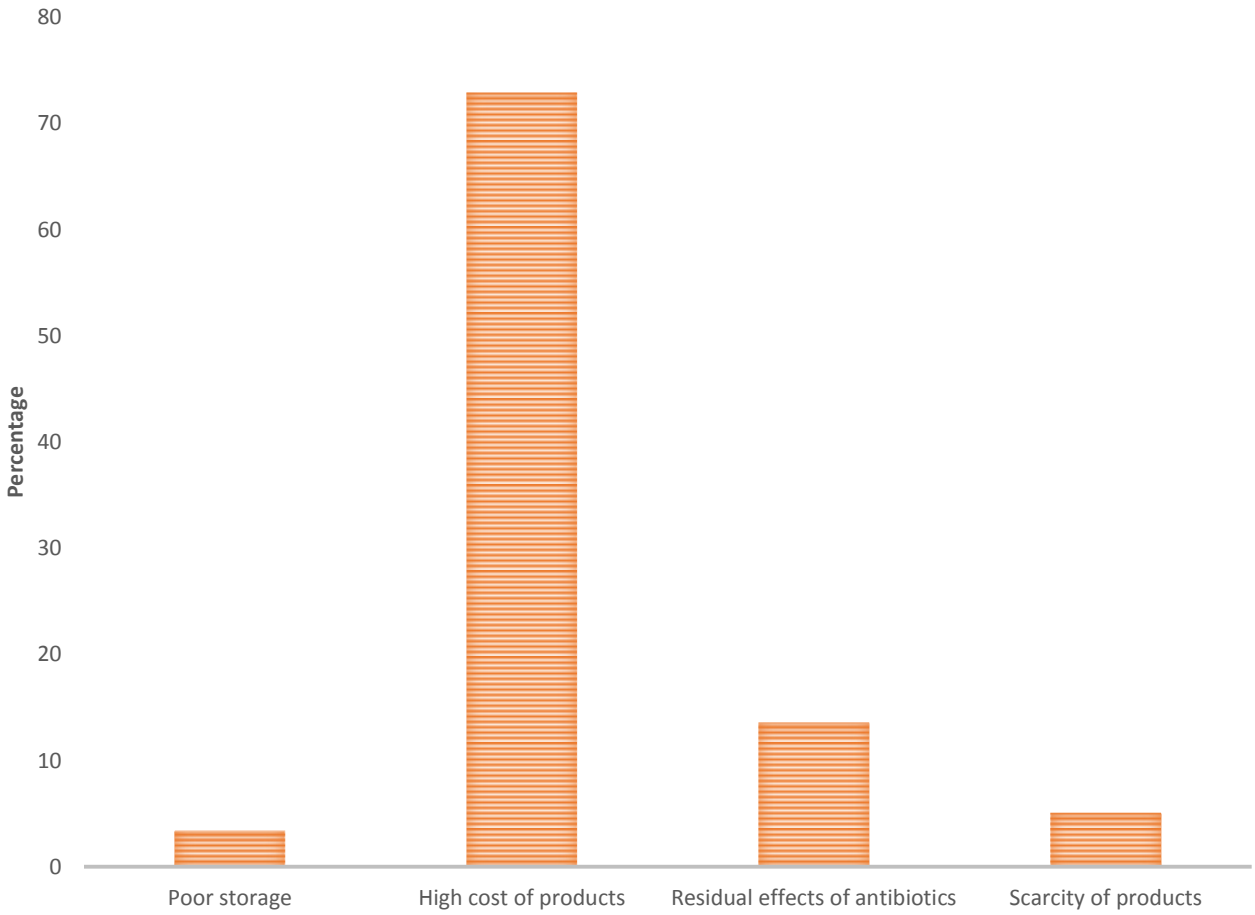


Figure 1: Constraint to consumption of poultry products

CONCLUSION

Majority of consumers of poultry products in Plateau State are males and single with tertiary education. Also, household size, level of education as well as occupation did not significantly influence the consumption of poultry products. High cost of poultry products was the major constraint to consumption of the products.

RECOMMENDATIONS

It is therefore recommended that government should proffer solutions that could stabilize prices of poultry products such as provision of support for input supply at standardized prices which can reduce inflationary increase in cost of production of poultry products. If this is done, it is expected to improve the demand and consumption of poultry products among Nigerians.

REFERENCES

Abdullah, R. B., W.K. Wan Embong and H.H. Soh (2011). Biotechnology in animal production in developing countries. Proceedings of the 2nd International Conference on Agricultural Science, Singapore, PP 201.

Aboki, E., A.A.U. Jongur and J.I. Onu (2013). Productivity and Technical Efficiency of Family Poultry Production in Kurmi Local Government Area of Taraba State, Nigeria. *Journal of Agriculture and Sustainability*,4(1): 52-66.

Adedeji, O.S, Amao, S.R., Alabi, T.J, Opebiyi, O.B. (2014). Assessment of poultry production in Ilesha West Local Government Area of Osun state, Nigeria. *Scholars Journal of Agriculture and Veterinary Sciences*, 1(1): 20-27.

Adu, I.F., Aina, A.B and Okeleye, K.A (1996). On farm establishment of productivity of Gmelina and Gliricidia as browse for goats. *Nigerian Journal of Animal Production*, 23 (1): 47-52.

Daniel, S., Ugwu (2009). Baseline study of small and medium scale poultry products in Enugu and Lagos state of Nigeria. *World Journal of Agricultural sciences*, 5(1): 27-33.

Delgado, C.L., Courbois C.B and Rosegrant, M.W (1998). Global food demand and contribution to livestock as we enter the new millennium; in M Gill, T. Smith, G.E Pollott, E. Owen and T.L.J Lawrence (eds). Food, lands and livelihoods setting research agendas for animal science. BSAS Occasional Publication 21:27-42

Duncan D.B. (1955). Multiple range and multiple F tests. *Biometrics*, 11:1-42

FAO (2009).Consumer preferences for poultry products in Indonesia. Prepared by Mulando Mulando and O. Thieme. GCP/RAS/228/GER Working paper N0. 12 Rome.

FAO (2011). Food and Agricultural Organization. Http://Faostat.Fao.Org/Site/339/Default.Aspx.

Guyeye, E.F., (2002). Employment and income generation through family poultry in low-income food deficit countries. *World poultry Science Journal*, 58:541-557.

Hai, M.A., Mahiuddin, M., Howlider, M.A.R., Yeasmin, T. (2008). Pattern and problem of poultry consumption by the rural and urban families of Pulbaria Upazila. *Journal of Bangladesh Agric University*, 6: 307-313.

Okoli, I.C., C.N. Anyaegbunam, E.B. Etuk, M.C. Uchegbu and A.B.I Udedibie (2004). Socio- Economic Characteristics of Poultry Business Entrepreneurs in Imo state, Nigeria. *Journal of Agriculture and Social Research*, 4(2):100-111.

Oyesola, O.B and Olujide, M.G (2000). Participation of livestock farmers in Nigerian Agricultural Insurance Scheme. A case study of Iseyin Local Government area. Proceedings of Animal Science Association of Nigeria Conference, Port Harcourt Sept. 19-22. Pp 213.

Mozumber, L.,Farid, K.S., Ahmed, J.U., Rahman, M.W (2009). Broiler farming: an approach to improve ruralFarid, K.S., livelihood. *Journal of Bangladesh Agriculture* 7:395-402.

Makama Samuila (2006). Census report http://www.population. gov.ng/index.php/census

SAS (2002). Linear model. https://www.sas.com/store/books/categories/usage-and reference/sas-for-linear-models-fourth-edition/prodBK_56655_en.html.

Yilmaz Aral, Erol Aydin, Pinar Demir, Ahmet CumhurAkin, Yavuz Cevger, Cagla Yuksel, Kaya Kuyululu, MehmetSaltuk Arikan (2013): Consumer Preferences and Consumption situation of chicken meat in Ankara Province, Turkey. *Turkish Journal of Veterinary and Animal Sciences* Vol. 37 Pp 582-587.