



Research Paper

Socio-economic factors militating against rabbit meat consumption in Imo State, Nigeria: A study of Ihitte Uboma Local Government Council

Marcus, C. A. and Onyeonoro, Q. C.

Department of Animal Production and Health Technology, Imo State Polytechnic Umuagwo, Nigeria.

*Corresponding author E-mail: emmaocy@yahoo.com.

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The study was conducted in Ihitte -Uboma Local Government Council of Imo State, Nigeria. The objective of the study was to determine socio-economic factors militating against rabbit meat consumption: The research was qualitative and quantitative in nature. The Proportionate random sampling method was used to collect data. The population comprised of smallholder rabbit farmers that kept 60 livestock. Data were collected by administering well-structured questionnaires to 50 rabbit farmers. Data collected were captured and analyzed using the statistical package for social sciences (SPSS version 22 of 2013) to obtain frequency and descriptive statistics. Descriptive statistics results indicated experience in rabbit farming, management system used, source of farm capital, awareness created by government in retrospect to rabbit meat consumption, veterinary

advice during disease outbreaks, litter size, impact of rabbit consumption on the populace and awareness through media. The results also indicated that (50%) of the smallholder rabbit farmers would like to increase their livestock numbers. It was therefore recommended that extension and veterinary services should be strengthened in the study area. In addition, it was recommended that smallholder rabbit farmers should be encouraged to plant pastures to reduce pressure on the natural forage available throughout the year. Lastly, as a recommendation, government should provide subsidies with distribution policies that will ensure that all smallholder rabbit farmers can benefit.

Key words: Socio-economic factors, rabbit meat consumption, smallholder farmers

INTRODUCTION

Nigerian breeds of livestock are characterized by poor growth, low fertility, poor feed utilization, small mature size and poor yield of meat, milk and egg (Tewe, 1997). The reason for these characteristics is that most of the indigenous livestock in Nigeria and rabbits in particular have been subjected to little or no genetic improvement, owing to dependence on obsolete breeding systems (Weller, 1994). Improvement remains a veritable option for the development of livestock in Nigeria. Ibe (1998) opined that genetic improvement of animal require a good understanding of basic concept of animal breeding.

Breeding system determines the system of exchange of genetic material among parents to produce offspring. Research has shown that irrespective of the breed of an animal, variations in mating systems produce variation in reproductive performance (Kumar *et al.*, 2001). The commonest breeds in Nigeria are New Zealand white, Chinchilla and Dutch.

At present, feed shortage and its high cost are the major problems of animal protein sources deficiency for human in the developing countries, which are due to limited land resources and the high competition between

human and livestock for high quality grains and protein supplements (Szendro and McNitt, 2012). Therefore, efforts have been made towards the solution of feed shortage by improving the conventional sources and investigating more unconventional feeds. It is well known that the feeding cost represents about 60-70 % of the total productive cost. The challenge for the feed formulation is to obtain least cost diets that fully match animal requirements (Maertens *et al.*, 2002). Minimizing the feed cost could be achieved through the use of untraditional cheaper feed ingredients or improving utilization of common feeds by using some feed additives.

Rabbits are particularly favoured for poverty reduction programmes on account of their low investment and early benefits, and subsistence on renewable resources for feeding, housing and general management. Thus, small-scale rabbit projects could be used as a vehicle for the poor to help themselves (Lukfahr, 1999).

Livestock can be described as all domesticated animals, especially rabbits, sheep, goats, cattle and pigs, intentionally reared in an agricultural setting for food, fibre or breeding purposes (Ntshepe, 2011). Livestock systems occupy about 30 percent of the planet's dry land surface area (Steinfeld *et al.*, 2006). According to Nouman *et al.* (2014), livestock has the biggest land-use activity globally, which is expected to double by 2020 with an annual increase of 2.7 percent in meat production and 3.2 percent in milk production. Livestock production in developed countries is highly efficient due to the limited availability of resources, especially land, which are better utilized with more attention given to animal ethics, environmental impact, product traceability and consumer satisfaction (Steinfeld, 2004). Livestock farming plays an important role in the agricultural sector for most countries. Livestock provide high-quality animal-source foods in conjunction with a myriad of associated economic and social benefits to communities worldwide (Capper, 2013). Imai, (2003) believes that livestock farming plays an important role in helping households to cope with negative shocks, because livestock provide diversification of income sources as farmers can easily sell their livestock to get cash.

Livestock production is the key to food security for many farmers in most developing countries, and an increase in livestock production is invariably associated with an increase in livestock numbers (Salem and Smith, 2008). Livestock farming has great potential to alleviate household food insecurity and poverty in communal areas of the world, including South Africa (Musemwa *et al.*, 2008). Livestock may be used as a form of insurance against crop loss in poor weather (Seo *et al.*, 2008). Livestock production contributes to food security both directly and indirectly, and plays a crucial role in the livelihoods of almost one billion of the world's poorest people (Smith *et al.*, 2013a and 2013b). Important products and by-products derived from livestock farming

include meat, milk, eggs, manure, feathers, hides and skins, fibre and wool. Keeping livestock is an important risk-reduction strategy for vulnerable communities, and livestock are important providers of nutrients and traction for growing crops in smallholder systems (Thornton, 2010).

Livestock provide major support to the livelihoods of many rural dwellers in Africa where milk, meat and blood are important dietary components (Mariara, 2009). Livestock can also be used to deliver vital nutrients needed to supplement the nutritional status of household members and secure their most fundamental livelihood asset and human capital as a means of alleviating poverty (Randolph *et al.*, 2007). According to Seré (2009), keeping livestock is not only a pathway out of poverty for the rural poor but also a means of spreading their risk and increasing their assets and resilience in order to cope with climate, market and diseases shocks.

Livestock also contribute to the food supply by providing manure in contributing to land preparation, providing ready cash to buy planting materials or fertilizer, or to hire labour for planting, weeding, or harvesting and converting low-value materials that are inedible or unpalatable for human consumption into milk, meat and eggs. However, livestock decreases food supply by competing with people for food, especially grains; currently livestock supply 13 percent of energy to the world's diet but consume half of the world's production of grain (Smith *et al.*, 2013b; Scholtz *et al.*, 2013). Ouma *et al.* (2004) noted that the benefits of livestock in a livestock production system outweigh costs when non-market parameters are considered. The rate of return on livestock capital investment is higher than that obtainable from cash, in a form of savings that can be invested in formal or non-formal financial institutions. These benefits of livestock keeping are of special importance in developing countries, where financial markets function poorly and opportunities for risk management through formal insurance are generally absent (Moll *et al.*, 2001). Apart from the financial benefits derived from livestock farming, Fafchamps *et al.* (1998) reveal that farmers may invest in livestock as part of a tribal custom or tradition, or use livestock as an investment device in the absence of access to banking.

Reflecting on the social importance of livestock, they are considered a common means of demonstrating wealth, strengthening relationships through bride price payments and for slaughter at funerals, child-naming ceremonies or other social/religious events to honour the person or god concerned. Livestock are also used in settling local disputes, whereby fines are paid with certain numbers of livestock (Ouma, 2003). According to Morton (2007), livestock production, especially on a small scale, is critical for many of the poor in the developing world, often contributing to multiple livelihood objectives and offering a pathway out of poverty through its impact on their nutrition and health. Livestock kept or produced in

smallholder farming systems are an important component of the agricultural economy in the developing countries of the world; large numbers of poor people currently depend and will continue to depend on this system for survival (McDermott *et al.*, 1999).

The small-scale livestock farmers, sometimes referred to as smallholder farmers, are mainly categorized by the livestock numbers, land size and household inputs. Smallholder farmers in developing countries have multiple goals for their livestock enterprises. Apart from cash benefits, livestock are closely linked to the social and cultural lives of smallholder farmers, for whom animal ownership ensures varying degrees of household economic stability (Lubungu *et al.*, 2012). Schultze *et al.* (2007) believe that cattle are the best instrument for finance for smallholder farmers and that they are the best option for large and flexible cash reserves; they also maintain the food security of the smallholder farmers by providing emergency finance.

In South Africa, cattle production is the most important livestock sub-sector as it contributes about 25–30 percent to the total agricultural output per annum. Cattle farming meet multiple objectives such as provision of draught power, manure and cash sales, among other socio-economic functions desired by poor farmers. Livestock are also the main sources of meat, dairy products, fibre and manure (Musemwa *et al.*, 2008). According to Umrani (2000), livestock contributes to the production of organic fertilizer and fuel; dung from livestock can be used to supply household energy.

McManus *et al.* (2011) observed that ambient temperature is the factor that has the largest direct effect on livestock production. Most livestock perform at their best at temperatures between 40°C and 24°C, and the temperature usually rises above this comfort zone in the tropics and sub-tropics. According to the study, climate affects livestock production through its impact on pasture, forage crop quality and production, changes in distribution of livestock diseases, disease vectors and parasites.

Changes in climate patterns have altered the patterns of disease in animals, as a result of change in the emergence of new parasites and syndromes and the prevalence of existing diseases, putting greater pressure on livestock production and survival (McManus *et al.*, 2011). Roger (2008) defines diseases in livestock as a state of disturbance of the health status of an animal. It can be caused by any factors that alter this status. Examples of diseases include foot-rot, gastrointestinal parasitism, hypocalcaemia and pregnancy toxemia. According to the study, diseases in livestock can be specific, shared with other species, or zoonotic, i.e. transmissible between animals and humans. Diseases left uncontrolled can reduce livestock numbers drastically. On the other hand, Smith *et al.* (2013b) believe that livestock disease can impact on food security when transmitted to humans, as these diseases may limit

productivity by hindering people's ability to produce food themselves or work to earn income to purchase food.

According to Salem and Smith (2008), breeding is an area of concern in improving livestock farming; however, cross-breeding of livestock to produce desirable traits for disease resistance requires better nutrition, which is provided by a higher intake and supply of good-quality forage. However, livestock development may imply an increase in the demand for forage crops, and this can be detrimental to grain production, thus raising grain security concerns (Smith *et al.*, 2013a). Thomas and Rangnekar, (2004) further state that the available land for livestock grazing has been reduced due to pressure for more cropping areas and infrastructural development. Blijnaut *et al.* (2009) believe that in South Africa, as in many other African countries, the agricultural sector (of which livestock production is a part) plays a very important role in the national economy.

Over 70 percent of the resource-poor farmers in South Africa live in harsh agro-ecological zones unsuitable for growing crops, and they are thereby forced to focus on livestock farming as a means of livelihood (Mapiye *et al.*, 2009). The livestock sector is currently experiencing an expansion due to increasing demand for livestock products and population growth. This expansion of livestock sectors presents both challenges and opportunities for rural households in emerging economies. For example, Thomas and Rangnekar, (2004) reveal that livestock farming encounters negative factors such as problems with housing and control of resources; access to credit and microfinance to purchase necessary inputs such as feed, supplements and drugs; and readily available and relevant knowledge. A study by the United Nations (2009 and 2011) indicates that climate change is having a negative effect on livestock production and has already led to a decline in the availability of surface-water resources, a requirement for livestock farming. Grassland pastures will also change to shrub land due to this decline, which will definitely have a negative impact on livestock farming.

Frequent droughts are also taking a toll on the condition and numbers of livestock, usually the breeding herd. A localized, limited supply of water leads to overgrazing and trampling by cattle, with a serious negative environmental impact (Marinara, 2009). This is similar to the case of livestock production in the tropics, where lack of available feed for livestock production is said to have resulted from overgrazing and poor-quality and reduced forage from natural veld during the dry season (Abdulrazak *et al.*, 1997).

Munyai (2012), in a study in the Limpopo province of South Africa, indicates that the most important constraints on livestock production are overstocking rates, feed and herbage shortage during winter, loss of livestock due to extreme drought, poor grazing-land management, uncontrolled breeding, stock theft and snares.

Table 1. Socio-economic profile of the participant farmers.

Characteristics	Category	Mean	Percentage
How long have you been in rabbit farming?	0-5 years	15	30.00
	6-10 years	25	50.00
	10 years and above	10 =50	20.00 = 100%
What management system do you practice?	Extensive	10	20.00
	Intensive	25	50.00
	Semi-Intensive	15	30.00 = 100%
What is the source of your farm funds	Loan	10	20.00
	Savings	25	50.00
	Others	15 =50	30.00 =100%
What is the role of Government in respect to awareness creation in rabbit meat consumption	Awareness	15	30.00
	Advertisement	25	50.00
	Access to villages	10 =50	20.00 = 100%
Do you consult Veterinarians during disease outbreaks?	Yes	30	60.00
	No	20 =50	40.00 =100%
Does the system you practice have any effect on litter size?	Yes	40	80.00
	No	10 =50	20.00 = 100%
Does rabbit meat consumption have impact on the populace of the study area?	Yes	40	80.00
	No	10 =50	20.00 = 100%
Effective management techniques on the domestication of rabbit farming.	Yes	30	60.00
	No	20 = 50	40.00 = 100%
Awareness creation through media.	Yes	40	80.00
	No	10 = 50	20.00 = 100%
Agencies involved in awareness creation.	Farmers	25	50.00
	Government	10	20.00
	Consumers	15 =50	30.00 =100%

Survey, 2016.

MATERIALS AND METHODS

The present study was conducted to determine the socio-economic factors militating against rabbit meat consumption in Ihitte-Uboma Local Government Council, Imo State, Nigeria by using a pre-tested questionnaire. Socio-economic profile of the rabbit farmers like experience in rabbit farming created by government in retrospect to rabbit meat consumption, veterinary advice during disease outbreaks, litter size, impact of rabbit consumption on the populace and awareness through media, efforts by the government to remedy the mishaps and management practices particularly litter size. A total of 50 rabbit farmers were selected randomly and interviewed. For the collection of primary data, direct interview method was followed using pre-tested questionnaire. Data were collected both from primary and secondary sources. The secondary data sources constituted government documents, related literatures, books and journals. Descriptive statistics such as mean, percentage, range, standard deviation and ranking were used to describe the indicators of the study.

RESULTS AND DISCUSSION

Socio-economic profiles of the respondent farmers

Data presented in (Table 1) express that the highest

proportion of farmers' experience (6-10 years) in rabbit farming as (50%) while the least experience of 10 years and above) had only 20%. This is in-line with findings of Onyeonoro (2016) who stated that inexperienced people move into rabbit farming due to unemployment in Nigeria. Fifty percent (50%) of rabbit farmers raise their rabbits till they attain maturity rates via intensive system of management. These findings agreed with Myer and Hall (2004) who indicated that rabbits raised under intensive system of production raises hope to the farmers in terms of profitability. Fifty percent (50%) of the farmers raise their funds through personal savings in order to avoid disappointments from money lending agencies. Majority of the rabbit farmers in the study area (60%) consult veterinary doctors during outbreak of diseases so as to save their animals from colossal loss. 80% of the rabbit farmers agreed that intensive system of production in Ihitte – Uboma Local Government Council was a good management practice since their animals kindle as when due and produces more litters (kits). These findings further agreed with those of (Okai, 1995, 1998, Okai *et al.*, 2000 and 2009) respectively. These authors stated that for effective management to be achieved, good housing systems must be provided in rabbit industry. Eighty percent (80%) of the rabbit farmers got the awareness on how to raise rabbits through media. This according to (Oppong *et al.*, 2008 and Rhule *et al.*, 2007) will encourage efficient and increased production of rabbits in any given area. Fifty percent (50%) of the

respondents reported that the awareness programmes were carried out by the farmers. This according to (Anozie, 2016) was a great challenge. He further suggested that government should aid the farmers by providing grants and subsidy to encourage them in farming.

Conclusion

There should be need to improve on the breeds of rabbits in order to help in combating protein deficiency in Nigeria. Good management practices will go a longer way in improving the reproductive performance and growth of rabbits and will in-turn increase the availability and steady supply of rabbit meat, hides and skin in Nigeria.

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