

## Survey of the Current Status and Seasonal Problems Associated with Rabbit Production in Kaduna Metropolis

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Received: 13-3-2015

Revised: 25-3-2015

Published: 24-4-2015

### Keywords:

*Rabbits,  
Dry season,  
Hay,  
Diarrhea,  
Bloat*

**Abstract:** A survey was carried out to ascertain the current status and seasonal problems associated with rabbit production in Kaduna metropolis. Two hundred structured questionnaires were distributed to respondents within the ten study areas as follows: Barnawa, Kurmin-mashi, Kakuri, Kawo, Uguwan, Dosa, Mando, Unguwaromi, Tudun-wada, Sabon-gari Zaria and Shika Zaria. The following information were sort for from the rabbit farmers: how long they have been involved in rabbits keeping, the type of breeds of rabbits kept, the maximum and minimum number of rabbits ever kept, the reasons for the choice of feeds, availability of the feeds during dry and raining season, problems faced in feeding the rabbits during dry season, common diseases during the two seasons and the advantage of keeping rabbits over other micro livestock. All the data obtained were analyzed using simple frequency distributions. Results shows that there were more male keeping rabbits than female 63.3% and 36.7% respectively. People within the age group of 21-30 years are more into rabbit farming than all other age group. There were more civil servants keeping rabbits than all other profession. 59.20% of the respondents preferred keeping rabbits during wet season when compared to the 40.80% that preferred dry season. Some of the difficulties experienced by farmers include: scarcity of greens/vegetables during dry season, high cost of feed, lack of good storage facilities for hay which does not last throughout the period of scarcity, diseases such as diarrhea and bloat. Possible ways of reducing and controlling these problems were suggested.

## INTRODUCTION

The poor economic conditions in many tropical countries and associated increase in the shortage of animal protein has turned attention to the rabbit (Iyegbhe – Erakpotoboretal 2006). In Nigeria for example rabbit farming is faced with myriad of problems which have resulted to a gross shortage of meat to meet up the population challenges (Nworgu 2007). Rabbit production is an effective means of converting forages and by-products into high quality protein for human consumption (Mailafia 2010). The advantages of keeping rabbits include but not limited to the following: Rabbit have small body size, short gestation period, high reproductive potential, rapid growth rate and ability to utilize forages compared to beef, chicken and mutton (Hassan *et al* 2012).

Rabbit production can be integrated into small farming systems with the rabbit being fed on crop residues, weeds, poultry droppings, kitchen and garden wastes. (Moneki and Seabo 2012). They require minimal initial capital outlay and can be easily sold when small amount of money is needed to meet the immediate need of family (Schiere 2004). Rabbit is the cheapest and sustainable means of producing high quality animal protein for the expanding populations of the less developing countries like Nigeria (Adeyinka *et al* 2007).

Green forages form the bulk of rabbit ration. The availability of these greens are scarce during dry season which last between October and April in most of Northern part of Nigeria. Because rabbit production offers a great potential towards attainment of food security in terms of animal protein intake, it is

important to investigate the current status and the seasonal problems associated with their production in kaduna metropolis.

**MATERIALS AND METHODS**

A well-structured 25 point questionnaire was administered to 200 rabbit producers in the study areas as follows Barnawa, Kurmin-mashi, Kakuri, Kawo,Uguwan -dosa, Mando, Unguwa-rimi, Tudun-wada, Sabon-gari Zaria and Shika Zaria. The following information were sort for from the rabbit farmers: how long they have been involved in rabbits keeping, the type of breeds of rabbits kept, the maximum and minimum number of rabbits ever kept, the reasons for the choice of feeds, availability of the feeds during dry and raining season, problems faced in feeding the rabbits during dry season, common diseases during the two seasons and the advantage of keeping rabbits over other micro livestock.

.Personal information on those that are involved in keeping the rabbits were also sorted for such as their age, sex, marital status and profession. All the information obtained were interpreted using simple frequency distribution. Possible ways of improving the rabbit’s production in Kaduna metropolis were suggested.

**RESULTS**

The sex and age distribution of the rabbit farmers is presented in table 1. The result shows that 63.30% of people keeping rabbits were male and the remaining 36.70% are female. The age group within which the highest numbers of rabbits were kept are between 21-30 years. This is followed by age between 31-40 years. The least was observed for 50 years and above.

The marital status and occupational distribution of the farmers is presented in table 2. From the result, married people kept more rabbits than the single which were 57.10% and 42.90% respectively. More civil servants are involved in rabbit keeping than all other profession having 40.50%. This is followed by the students having 28.60%. Table 3 shows the experience of farmers and seasonal performance of rabbits. The study area showed that farmers that have spent two years in rabbit production had the highest percentage which was followed by those that are 3 years in it. Result for season also shows that rabbit performed better during wet season than dry season as could be seen by the 61.20% for wet season against the 20.40% for dry season and 18.40% for both season.

**Table 1: Sex and Age Distribution of the Rabbit Farmers.**

sex	Age (years)								
	Male	Female	Total	15 – 20	21 – 30	31 – 40	41 – 50	50-above	Total
Frequency	31	18	49	7	17	16	7	2	49
Percentage	63.30	36.70	100	14.30	34.70	32.60	14.30	4.10	100

**Table 2: Marital Status and Occupational Distribution of the Rabbit Farmers**

	Marital status			Occupation					
	Married	Single	Total	Civil servant	Students	Farmer	Trader	Other	Total
Frequency	28	21	49	20	14	6	5	4	49
Percentage	57.10	42.90	100	40.80	28.60	12.20	10.20	8.20	100

**Table 3: Experience of Farmers and Seasonal Performance of Rabbits.**

	Experience						Seasonal performance			
	1yr	2yrs	3yrs	4yrs	5yrs - above	Total	Wet	Dry	Both season	Total
Frequency	3	15	14	7	10	49	30	10	9	49
Percentage	6.10	30.60	28.60	14.30	20.40	100	61.20	20.40	18.40	100

**Table 4: Preferred Season and the Number of Rabbits kept**

	Preferred season			Number_of rabbits kept					
	Wet	Dry	Total	0-5	6-10	11-15	16-20	20-above	Total
Frequency	29	20	49	6	13	7	10	13	49
Percentage	59.20	40.80	100	12.20	26.50	14.30	20.40	26.50	100

**Table 5: Type and cost of feed given to rabbits**

	Feed						Cost		
	Grains	Vegetables	Rouhage	Hay	Supplements	Supplements \$ hay	Expensive	Quite expensive	Very expensive
Frequency	14	4	6	12	4	9	16	28	5
Percentage	28.6	8.1	12.2	24.5	8.2	18.4	32.6	57.2	10.2

The result for preferred season and the number of rabbit kept is presented in table 4. The percentage of farmers that preferred raising rabbits during wet season was 59.20% which was higher than the 40.80% for the dry season.

The number of rabbits kept did not follow a specific pattern of distribution. However, those that kept between 6-10 rabbits and those that kept 20 and above had the highest percentage of 26.50%.

## DISCUSSION

The reason for more male involvement in rabbit keeping than the female could be due to the engagement of female in other domestic work that tends to divert their attention. Moreover, male are the bread winners and would need more sources of income that can cater for the need of the family. This is at variance with the work of Onifade *et al* (1999) where they observed that more women and children are involved in rabbit keeping. The reason for the spread of age group from 21-40 years within which the highest numbers of rabbits are kept may be due to higher number of the unemployed among this group. Most people within the group are no longer depending on family members for their needs. Hence they explore all avenue to make the ends meet. This agreed with the work of

Iyeghe *et al* (2006) where they observed that poor economic condition in many tropical countries and associated increase in the shortage of animal protein has turned attention to rabbit production as a ready solution to the problem. The possible explanation to why married people are involved more in rabbit keeping than the unmarried is to meet the family responsibilities. Rabbit is a ready source of income whenever the need arise. This agrees with the work of Schiere (2004) where he observed that rabbits could be sold when small amount of money is needed to meet the immediate need of the family.

The involvement of civil servants more than any other profession could be viewed from different angles. One could be due to the level of understanding among the group which give them edge over others. It could also be due to low level of income which is usually augmented by the sales of these rabbits. Another one could be due to availability of time to civil servants than other professions who have little or no time to devote to rabbit keeping. The reason why students are involved in rabbit keeping is that it requires a minimum capital and space to start as observed by Hungu *et al* (2013). This makes it easier for the students to keep rabbits. Judging from the experience of farmers it can be said that majority of rabbit farmers in Kaduna are new to the business. Its either the farmers that have done the business in the

past have abandoned it or the need for keeping rabbit is just being realized. The better performance of rabbits during wet than dry season could be due to availability of more feed resources during wet than dry season. This agrees with the work of Ola *et al* (2012) where they observed that dry season feeding is the greatest challenges that faces forage based rabbits operation in Nigeria. According to them this is due to non-availability of the annual crops such as *Centrosema pubescence*, *Tridax procumbens*, *Panicum maximum* and *Aspilia Africana*. Rabbits are pseudo-ruminants. Bunks of their feed are green vegetables which is available in abundance during wet season. It is recommended that dry season farming be expanded within Kaduna metropolis so as to bust the availability of green vegetables during dry season. Small scale farmers should be encouraged to expand their production to enhance the availability of cheaper animal protein. Appropriate drugs be made available to farmers to avoid obvious losses during outbreak of diseases. Improved high quality breeds of rabbits be made available to farmers at a subsidize rate.

## REFERENCES

- Adeyinka IA, Akanwa CL, Iyeghe-Erakpotobor, Adeyinka FD and Orunmuyi M (2007). Factors affecting some traits of economic importance in rabbits of a tropical environment of Northern Nigeria. *Journal of Biological Sciences* 7(2) 425-428.
- Hassan HE Elamin KM, Yusuf IA, Musa AM and Elkhairey MA (2012). Evaluation of body weight and some morphometric traits at various ages in local rabbits of Sudan. *Journal of Animal Science Advances*. 2(4): 407-415.
- Hungu CW, Gathumbi PK, Maingi N and Nganga CJ (2013). Production characteristics and constraints of rabbit farming in Central Nairobi and Rift Valley Provinces in Kenya. *Livestock Research for Rural Development* 25(3): 1-13.
- Iyegbhe-Erakpotobor GT, Aliyu R and Uguru J (2006). Evaluation of concentrate grass and legume combination on performance and nutrient digestibility of grower rabbits under tropical conditions. *African Journal of Biotechnology* 4(20) 2004-2008.
- Mailafia S, Onokpa MM and Owoleke OE (2010). Problems and prospects of rabbits production in Nigeria. *Bayero Journal of pure and applied sciences* 3(2):20-25.
- Moreki JC and Seabo D (2012). Current status, challenges and opportunities of rabbit production in Botswana. *Journal of Animal and Feed Research*. 2(2): 177-181.
- Nworgu FC (2007). Economic importance and growth rate of broiler chickens served fluted pumpkin (*telferia occidentalis*) *African Journal of Biotechnology* 2(6):34-39.
- Ola SI, Williams OS, Obamajure IA and Okumlola AM (2012). Sexual receptivity and conception rate of rabbit does fed selected perennial forages in Ile-Ife Nigeria. *Proceedings 10<sup>th</sup> world rabbit congress* 291-295.
- Onifade AA, Abu OA, Obiyan RI and Abanikannda OTF (1999). Rabbit production in Nigeria: some aspects of current status and promotional strategies. *World rabbit science* 7(2) 51-58.
- Schiere JB (2004). *Agrodok 20 Backyard rabbit farming in the tropics* (4<sup>th</sup> edition). Agromisa foundation. Wageningen, the Netherlands. Pp71-78.