

## Goat Production in Oyo State: A case study of Ogbomoso town

\* S.M. Odeyinka and G.K Okunade.

Department of Animal Science, Faculty of Agriculture Obafemi Awolowo University, Ile-Ife, Nigeria.

E-mail: smodeyinka@yahoo.co.uk \* Corresponding author:

### Abstract

*The study was conducted in two Local Government areas (LGAS) of Oyo State: Ogbomoso North and Ogbomoso South L.G.A. The study was carried out through the use of structured questionnaires. A total of 90 questionnaires were administered randomly in the two LGAS. Questions were asked based on background, production system, constraints to goat production e.t.c of the respondents. The data were analyzed separately using descriptive analysis. The results showed that 95.2% of household owners of goat were females while the major farms employed male labour. West African Dwarf goat was the common breed of goat raised in the two LGAS. Majority of the household owners of goat practised free range system of production (86.7%) while a large percentage of the major farms practiced intensive system of production (80%). There were no specialized housing and feeding programmes, a larger percentage of both categories fed crop residues such as cassava peels, cornstarch meal residues, and cowpea husk to the goats. The household owners of goat seldom feed forage to their goats (20%) while all the major farms fed forage to the goats. The common diseases in the area were diarrhea, pneumonia and mange. No form of control breeding was practiced among the categories of goat keepers. There is a lack of extension service in the areas because majority of both the household owners (98%) and major farms (60%) did not have access to extension agents. The constraints to goat production in the area include accidents on the road, seasonality of feed supply, diseases, theft, lack of capital and land.*

**Key Words:** Goat production, Ogbomoso, Oyo-State

### Introduction

The developing countries of the world have a daily animal protein intake that is below the Food and Agriculture Organization (FAO, 1985) standard of 25g. FAO (1986) reported that the protein intake per person has fallen from 50.9g between 1979-1981, to 45.0g between 1983-

1985. In Nigeria, this amounts to only 10g per day of animal protein intake (FAO, 1985). For an improved animal protein intake in Nigeria, there has to be an improvement in the production of meat and other protein sources from the livestock industry and goat production is a major part of the industry.

Goats are mostly kept and reared by male farmers engage in food and tree crop production or women involved in food processing or marketing in the rural area. International Livestock Centre for Africa (ILCA)'s village surveys in southwest Nigeria indicated that up to 75% of the rural population keeps small ruminants with an average herd size of two to four animals per household, the goats being more commonly kept than the sheep (Sumberg and Cassaday, 1984, Sumberg and Mack, 1985). Similar pattern was observed in Osun state (Odeyinka, 1996), and in the in the Eastern part of Nigeria by Gefu *et. al* (1994). However, the mean flock sizes per household were 14.2 and 6.9 for goats and sheep respectively in old Bauchi state (Doma *et.al*; (1999) Goats are mostly kept on a part time basis to supplement the household main income and also for use during special occasions and festive seasons. According to Upton, (1987), goats in the humid tropics, are generally kept as a low-cost adjunct to arable and tree crop production.

The importance of goat production can be summarized as; small ruminants (sheep and goats) are sources of meat, which provide animal protein that is indispensable to a balanced human diet (Alimi, 1987). Goat meat enjoys wide acceptability among the different socio-cultural groups because there is a lack of taboo against goat meat (Peacock, 1996). Goat also produces milk, which has some medicinal advantages over cow's milk. Their small size relative to cattle contributes to their wide distribution and easy management among women and children who provide the bulk labour in small family farms. Goat serves as insurance against crop failure because they can quickly be converted to cash in times of financial need. They also have important drought survival strategy in marginal cropping area where mixed farming is prevalent (Doma *et.al*; (1999). Goats reproduce very fast with tropical breeds producing twins and some triplets. Hence, a small flock can quickly expand

until it forms a major part of the family capital asset (Peacock, 1996). The goat is considered superior to other ruminant species in it's utilization of poor quality, high fibre forages (Howe *et al*,1988 and Dominique *et al*, 1991) Hence, feed cost is relatively lower than when compared with mono-gastric animals, which could be up to 70% of the total cost of production.

There is no information in literature on Ogbomoso town as it relates to goat production. Most studies on small ruminant production have been carried out in the villages (Matteyman, (1977), Sumberg and Mack, (1985) and there is scanty information on urban production. There is therefore the need to evolve suitable production and management practices, so as to improve the performance of small ruminants in the area. The study was designed to ascertain the level of development of goat production in Ogbomoso town and to identify the major constraints affecting goat production in the area.

## **Materials and Methods**

The study areas were Ogbomoso North and Ogbomoso South local government areas of Oyo state. The state is located in southwestern Nigeria. Ogbomoso north and Ogbomoso South are located between latitude 8° 5' and longitudes 4° 11' in southwestern Nigeria. They are in the savanna belt (derived) of Nigeria with an annual rainfall of about 1,250mm, a mean annual temperature of about 26°C and a mean annual sunshine of about 2,000-2,250 hours. Major occupations of the people are trading, public service and farming. Many do combine farming with other occupation like tailoring, brick layering, transporting and embroidery making.

A total of 90 questionnaires were distributed among the selected areas in the two local government areas, Ogbomoso North and

Ogbomoso South. The selected areas were "Sabo", "Randa" and "Apake" in Ogbomoso north and "Caretaker", "Ahoyaya" and "Osupa" areas in Ogbomoso South. The areas were selected randomly and divided into streets. Five questionnaires were distributed per street. Forty-five questionnaires were distributed per local government area. The major farms in the two local governments were also sampled; they were five in number. Out of the ninety questionnaires, 88 were collected back for analysis. The household owners of goats filled 83 questionnaires and the major farms in the areas filled five questionnaires.

Data obtained from the study (the two LGA combined) were analyzed using the descriptive statistics i.e. range, mean, frequency and percentages (SPSS for Ms Window release 6.0).

## **Results and Discussion**

Two different sets of data were collected during the study. The first set was from five major farms in the areas and the second set from 83 household owners of goats in the areas. The results were analyzed separately and presented in tables 1 to 3.

Table 1 shows the background information of the respondents expressed in percentages and their absolute values. Goat production in Ogbomoso town is common among adults. Majority of household owners (95.2%) were females while 4.8% were males. This is similar to the observation made under village production of goat (Sumberg and Cassaday, 1985). Majority of the major farms hire only male laborers to handle their goats (80%). Majority of the respondents were educated, having a minimum of secondary education. This is in agreement with previous work conducted in peri-urban towns in

Osun-state (Odeyinka, 1996). About ninety-eight percent of the household owners of goats take goat production as a part time business while all of the major farms take goat production as a full time business.

Free-range system of management is the common method of production among the household owners (86.7%) while 80% of the major farms practised the intensive system of production. Majority of the household owners do not have houses for their goats, instead the goats sleep around the houses and along the streets at night while majority of the major farms housed their animals in concrete floored houses. A large percentage of both the farms and household owners purchased their parent stock and the herd then increase through new births (kidding). However, the practice of contractual agreement was used by 31.8% of the household owners to enter the goat production business. Predominant among the reasons given for keeping goats are supplementation of income whereby the goats are sold mostly through a goat seller to the final consumer and for consumption during special occasions. Other reasons include the belief that goats are substitute victims for evil or sickness that is supposed to come upon members of the household. The mean flock size per household per LGA was 4.6 for the household owners and 32 for the major farms. This is an improvement over 2 to 4 which have been reported in literature for goat production in the villages (Sumberg and Mack, 1985).

All the major farms and 76.5% of the household owners received the services of veterinary personnel. The cost of treatment collected from the major farms and household owners was #487.00 and #140.00 respectively per farm per year. The common diseases of goats in Ogbomoso town were diarrhea, mange and

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**Table 1 Characteristics of goat producers in Ogbomosho town.**

Characteristics	Major farms		Household Owner	
	Absolute figure	%	Absolute figure	%
Sex of respondents				
Male	5	80	4	4.8
Female	0	0	80	95.2
Age of respondents				
0-18			2	2.4
19-30	3	60	13	15.7
31-50	2	40	44	53
>50	0	0	22	28.9
Form of business				
Part time	0	0	81	97.6
Full time	5	100	2	2.4
Types of animal kept				
Goats	1	20	76	91.6
Sheep				
Mixed	4	80	7	8.4

**Table 2 Feeding pattern of goats in Ogbomosho town**

Characteristics	Major farms		Household owners	
	Absolute figure	%	Absolute figure	%
Type of feed				
Kitchen waste	2	40	5	5.5
Forage	5	100	19	20
Crop residue	5	100	82	91.1
Crop by product	2	40	0	0
Source of feed				
Farm	4	80	16	19.3
Market	1	20	45	54.2
Processors	0	0	7	8.4
Kitchen wastes	0	0	15	18.1

Total observation for the type of feed is greater than 100% due to multiple responses.

Table 3 Level of developments

Characteristics	Major farms		Household owners	
	Absolute figure	%	Absolute figure	%
Access to extension agent				
Yes	2	40	10	12
No	3	60	73	88
Access to agricultural journals				
Yes	3	60	3	3.6
No	2	40	80	96.4
Goat's manure				
Spread on farm	3	60	3	3.6
Throw it away	2	40	80	96.4

pneumonia. Among the major farms, foot and mouth rot, PPR, helminthiasis were also prevalent.

Table 2 shows the type and sources of the feeds given to the goats. All the major farms feed forages and crop residues to the goats while 20% fed forages to the goats. The type of crop residues includes cassava peel, cowpea husk and corn starch meal residues. The types of forage given to the animals include *Leucaena leucocephala*, *Gliricidia sepium*, *Centrosema pubescens*, *Panicum maximum* and *Bracharia brasilantha*. Among the major farms 80% get their feeds from the farms while 20% bought the crop residues from the market. About fifty-seven percent of the household owners of goats bought their feed from the market while 18.3% fed waste from the farm to the goat. Both parties of goat keepers fed their goats on a regular basis.

Household owners of goats did not practice control breeding while 80% of the major farms did not practice control breeding. Both parties practice loose buck mating. Large percentage of

the goats had multiple births; the young doe gives birth to one kid initially and then starts giving birth to two or three kids afterwards. This is in agreement with previous reports on the prolificacy of West African breed of goats which are predominant in the area.

Table 3 shows the level of goat production development in terms of access to extension services and agricultural journals. Eighty eight percent of household owners and 60% of major farms did not have access to extension services while majority of the major farms and very few household owners, 60% and 3.6% respectively had access to agricultural journals and magazines. Other constraints to goat production in the area include: diseases, accidents, seasonality of feed supply, theft, destructive habit of goat, and lack of capital and land. Similar constraints have been reported in literature (Gefu *et al.*; 1994, Doma *et al.*; 1999). Because of the high level of literacy reported, it was observed that 60% of the major farms made use of the goat's manure to fertilize the soil while only 3.6% of household owners utilized the manure. There

is therefore the need to sensitize livestock farmers to sustainable agricultural practices for increased productivity of their livestock.

Goat production in Ogbomoso town was basically on a part-time basis. This is in agreement with Upton, (1988), that goats in the humid tropics are generally kept as a low cost adjunct to arable and tree crop production. This is probably due to the large investment capital required to raise goats on a large scale production. The distribution of goats in the area shows that the household owners are the major producers of goats in the area. This is in agreement with (Sumberg and Cassaday, 1985), who reported that 75% of the rural population keep small ruminants with an average herd size of two to four animals per household, the goats being commonly kept than the sheep. The productivity of the goats in the area was very low due to the free-range system of production. This is because under this system the animals received minimal inputs in terms of nutrient content of the feed and breeding control programme. This is in agreement with the reports of Ademosun (1993) and Gefu *et.al*; 1994.

The goat producers in the areas had access to veterinary services, which would help to reduce the rate of mortality among the goats. A lapse in the veterinary services provided was that the household owners could only afford the services of "quacks", which explains why the cost of treatment was low compare to major farms. Crop residue are the most common feed type fed to the goats, although these feed resources are abundant and cheap sources of nutrients for ruminants especially during crop growing season.

Nevertheless, they are generally low in nutrients (Nicholson, 1984). This generally limits optimum productivity of goats in the area.

### Conclusion

Goat keeping is a common practice among the people of Ogbomoso town especially among the households. Free range system of production was mostly used and the breed of goats kept was limited to the West Africa Dwarf goat that is adaptable to the area. Goats were kept to supplement the family income and for consumption during the festive seasons and special occasions. The level of development of goat production in the area can be said to be low because the services of the extension agents in the area was virtually none existing. Therefore, the gap between the goats' producers on the field and researchers in the laboratory is not bridged.

Also, the management system used in raising goats is poor; they tend to leave the production of goat more to chance than well-organized management. The gene pool of the goats in the area are not being improved; because no form of genetic improvement was done due to lack of controlled breeding practice. The constraints to goat production were seasonality of feed supply, accidents, theft, poor management system and disease. Goat keepers should provide housing for the goats or practice tethering, to reduce the occurrence of theft and accidents.

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