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# Management practices among small holders of sheep, goats and pigs in the derived savanna zone in Oyo State, Nigeria

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## Abstract

*A study was conducted to assess the systems of management adopted by small farm holders of sheep, goats and pigs in Oyo State, Nigeria. Data were collected from a total of 25 farms spread over the villages and towns using structured questionnaires. The study revealed that most farmers keep a combination of sheep and goats. Ninety-two percent of the respondents were private owners, while 12% of the respondents indicated a community or group ownership of the farms. Most of the farm holders were males (84%) having 6 to 10 years experience in livestock farming. Personal savings constituted the major source of capital for the enterprise. Sixty-four percent of the farms reared their animals semi-intensively compared with 32% for intensive and 4% for extensive. Eighty percent of the farmers fed their animals twice daily, mainly on pasture along with other feed supplements such as cassava. The animals were infested with various diseases and were treated only when infected. Prevention or control of diseases was done through vaccination and good hygiene and feeding. Most of the livestock were disposed or sold off at adult age.*

**Keywords**: Management, small farm holders, sheep, goats, pigs

## Introduction

Sheep and goats contribute about 30% of the total meat consumed in Nigeria, and the demand for goat meat and mutton keep increasing (Ademosun, 1976). These small ruminants produce valuable skins for both export and local leather industry (Ademosun, 1976). Again he stated that the raising of pigs (being non-ruminants) offer the avenue for the most rapid transformation in animal protein production. Gefu *et al.* (1994) also reported that sheep and goats serve as a flexible financial reserve for the rural population as well as play other socio-cultural roles in the customs and traditions of many Nigerian societies. The smallholder farmers and pastoralists in the tropics and subtropics keep most of the ruminants in the world (Bayer and Waters-Bayer, 1998). They further stated that such farmers keep about half of the 1.2 billion cattle, more than half of the 1 billion sheep, 90% of the 600 million goats and virtually all the buffaloes and camels. These authors also mentioned that farmers needed to make a decision on the type of management system to adopt for their livestock, such as intensive, semi-intensive, extensive or a combination of two or more of such systems. Jacobs (1986) reported that animals might range for their own food or have their food brought to them. When grazed, they are given abundant and varied forage, and they are able to select the food they need (Jacobs, 1986). In Nigeria, nomadic Fulanis own approximately 80 to 90% of the cattle population, 61% of the sheep and 68% of the goats and they are evidently found to be the major suppliers of meat, milk and other

animal products for the entire country (Ajakaiye, 1980). The author however mentioned that the main concern was that the traditional Fulanis alone could no longer cope with the ever-increasing demand for meat and other animal products, so that it is important to have other small farm holders. The paucity of documented data on the various management systems adopted by small farm holders of sheep, goats and pigs prompted this survey. It is the aim of the study to provide information that will enhance renewed efforts at boosting small ruminant and pig production in the country.

## Materials and methods

The survey was conducted in Oyo, Ogbomosho and Saki which are located in the derived Savanna zone of Oyo State in South-western Nigeria. In this area, sheep, goats, poultry and pigs are widely kept by small farm holders. The study was undertaken during the dry season, between December 2000 and February 2001 through a number of multiple survey visits of 25 small farm holders of sheep, goats and pigs. The questionnaires were centered on management characteristics, which included the types of livestock kept, management and feeding systems adopted on the farms, the prevalent diseases and the control methods used by the farmers. Others were financing of the farms and the stages of growth at which the animals are marketed or disposed off by the farmers. The data collected were analysed using SAS (1987) to derive frequencies and percentages.

## Results and discussion

Results of the study showed that majority of the respondents keep either sheep or goats or pigs alone as shown in Figure 1. Among the farmers that keep sheep and goats, preference was actually for keeping of goats as compared to the keeping of sheep. This was attributed to the fact that goats possess better ability to thrive and survive on their own with little or no care especially in environments where vegetation is extremely scarce as earlier reported (MacKenzie, 1967). Farmers who keep pigs alone (Figure 1) stated that they found pigs to be more prolific than sheep and goats. This observation corroborates the findings of Balogun (1981) that pigs have higher prolificacy than sheep or goats. Only few of the farmers were found to keep all three species of livestock (i.e. sheep, goats and pigs together) (Figure 1).

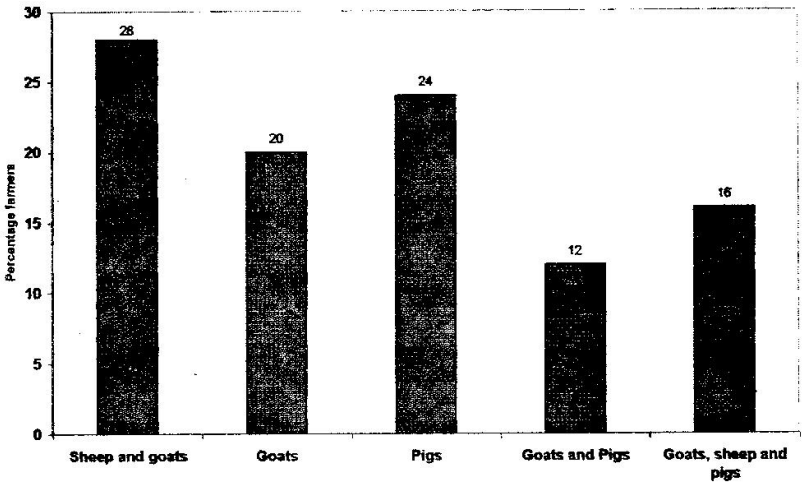


Figure 1. Types and prortion of livestock kept by farmers

Figure 2 showed that most of the farms (92%) were privately owned while community or group of farmers owned 8% of the farms. Majority (84%) of the small farm holders were males and with education beyond the secondary school level. This could be due to the fact that the males being the family heads initiated the farming process undertaken by their families. The farms were set up mainly using their personal savings hence the preponderance of private ownership of the farms.

The main systems of management adopted by the small farm holders are the intensive and semi-intensive systems. According to Figure 3, 32% and 64% of the farmers adopted the intensive and semi-intensive management respectively. Only 4% of the farmers practiced the extensive management system. A similar finding reported (Idowu and Fabiyi, 1995) where, 22%, 61% and 4% was reported for intensive, semi-intensive and extensive management systems on small ruminant farms. The higher percentages reported for the adoption of intensive and semi-intensive management systems by farmers could be due to the high productivity, lower mortality rate, protection from harsh weather conditions and lower rate of losses observed under these systems (Devendra and Burns, 1983; Charray *et al.*, 1992; Serres, 1992). The extensive herd management system is also found to be a low input- low output system (Devendra and Burns, 1983) in which high productivity cannot be expected.

The practice of feeding the animals twice daily was more common, accounting for 80% among the farmers (Figure 3). This may be attributed to the convenience of farmers being able to feed their animals before going to and after returning from work. Feeding was with pasture together with some feed supplements (such as cassava, yam, plantain and banana peels and fresh cassava) or compounded feeds. Feeding with pasture was most common and accounted for 72%. This may be attributed to the pasture being the cheapest source of livestock feed and is thus able to sustain most animal production systems worldwide (Bakrie *et al.*, 1996).

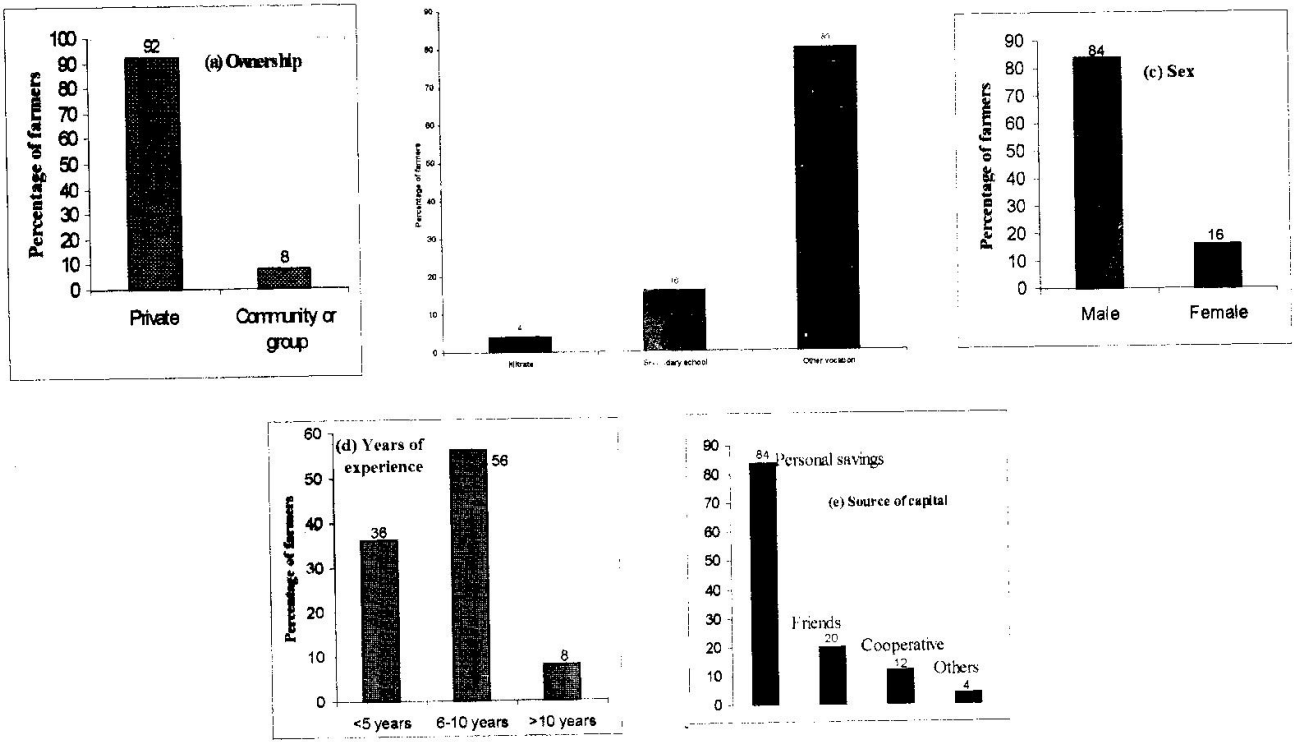


Figure 2. Ownership characteristics of livestock

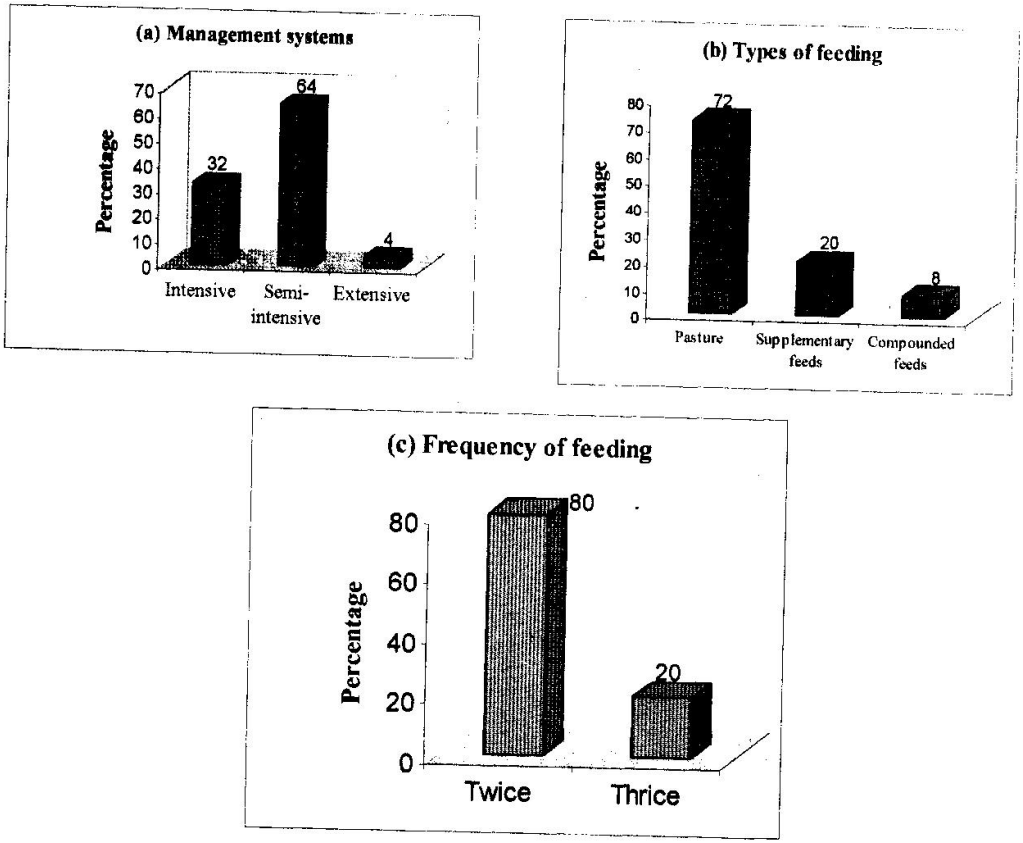


Figure 3. Management and feeding systems of livestock

The most common disease reported was mange infestation (64%), followed by diarrhea or scour (12%) and then foot and mouth disease (8%) (Table 1). Adebowale *et al.* (1992 also observed 69% mange infestation on sheep and goats farms in the derived savanna zone of Oyo State, Nigeria. These authors also reported that generally goats were more susceptible to the prevailing diseases than sheep. Animals were vaccinated and given treatment when they fell sick. Vaccination (40%) was the major disease control measure adopted by the farmers (Table 1).

**Table 1:** *Prevalent diseases and their control methods*

| Prevalent disease | Frequency | Percentage (%) |
|---|---|---|
| Mange infestation | 16 | 64 |
| Foot and mouth | 2 | 8 |
| Diarrhea and scour | 3 | 12 |
| Skin rabies | 1 | 4 |
| Others | 3 | 12 |
| **Frequency of treatment** | | |
| Twice | 5 | 20 |
| Thrice | 4 | 16 |
| Whenever sick | 13 | 52 |
| Others | 3 | 12 |
| **Control methods** | | |
| Vaccination | 10 | 40 |
| General hygiene | 5 | 20 |
| Adequate nutrition | 5 | 20 |
| Good management | 4 | 16 |
| Others | 1 | 4 |

Forty percent of the farmers acquired their farmlands free, while 7% paid rent below N500, 33% between N500 and N5000, 7% between N5000 and N10, 000 and 13% above N10, 000 per annum (Figure 4). Substantial amount was used by the farmers for the treatment of livestock diseases annually. Thirty-two percent of the farmers spent below ₦1000 per annum, 28% spent between ₦1000 and ₦5000, 4% between ₦5000 and ₦10, 000 and 36% above ₦10, 000 as shown in Figure 4. 36% of the farmers disposed off their animals at the adult stage, while home consumption accounted for 8% of such disposal.

The study revealed that in the area where the survey was carried out, farmers had the preference to keep either sheep together with goats or pigs only. A fewer number of the farmers kept all three species of livestock. The farmers were literate males who used their personal savings as sources of their capital and they were mainly privately owned smallholder farmers. Sheep, goats and to a very limited extent pigs were fed with pastures. Pigs were fed supplementary feeds and concentrates along with fresh cassava twice daily.

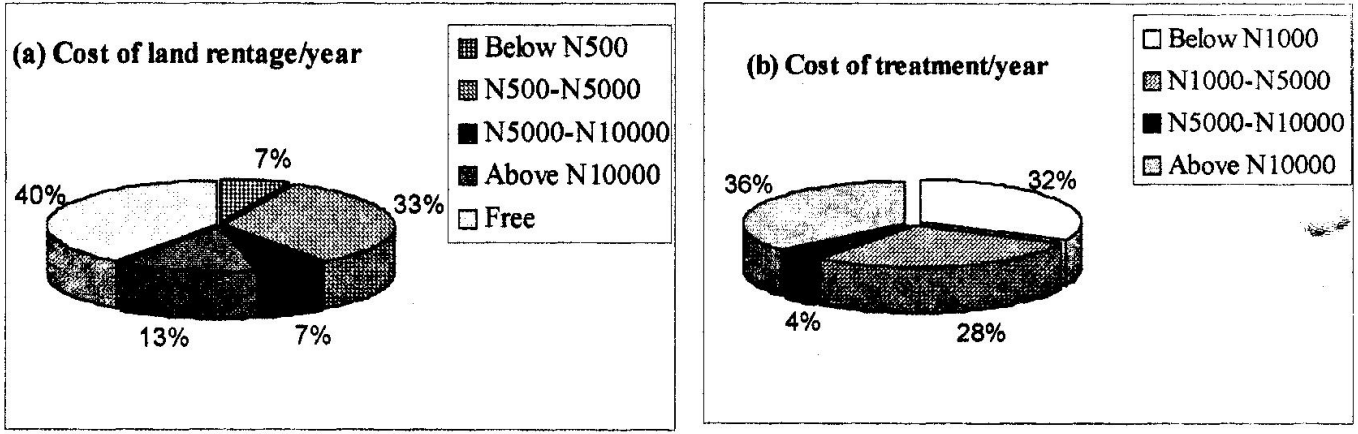


Figure 4. Land rental and cost of treatment in small holder livestock production

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