ASSESSMENT OF SHEEP PRODUCTION PRACTICES IN YOBE STATE NIGERIA

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ABSTRACT
This study evaluated the socio-economic characteristics of sheep farmers, their production practices and constraints to production in Yobe state. Respondents for the study were selected using two-stage sampling techniques. Primary data were collected with the aid of well-structured questionnaire and analyzed using descriptive statistics. The results showed that the majority (51.67%) of the producers are males and most (23.33%) were within the age bracket of 15 - 25 and 56 - 65 years many (30%) of them had household sizes of (11 - 15) and majority of the respondents (37.08%) had secondary education. Also, the results revealed that the major constraints to sheep production in the study location was lack of initial capital (25.42%) followed by theft and predators (22.5%) then disease and parasite (20%). This study recommends that sheep farmers should come together and form cooperatives; thereby they could have access to soft loans hence improving production, in terms of medication capital for investment and expansion
Keywords: Sheep farmers, production practices, Constraints, socio-economic characteristics,

INTRODUCTION

Small ruminants constitute one of the livestock groups which plays a major role in food sufficiency, socio-economic as well as economic development of many developing countries including Nigeria (Luikartet *et al.,* 2001). Sheep in particular are rich source of animal protein (meat and milk) as well as good quality skin, they can thrive on poor quality forages and kitchen waste (Adedeji *et al.*, 2011). The economic importance of sheep in developing nations cannot be over emphasized. Sheep with their small body size, high productive capacity and rapid growth rate are ideally suited to production by resource-poor smallholders. The population of sheep in Nigeria is currently estimated at 33.9 million making up 3.1% of the world total (FAOSTAT, 2011). They could be sold to meet the financial obligation of the family and could also be slaughtered for meat consumption during festivals and ceremonies, sheep serves as an insurance against crop failure (FDLCS 1991, RIM, 1991). Despite these attributes of sheep, challenges of livestock production in Nigeria are becoming more critical as human population increases, while small ruminant production systems still remain constrained by socio-economic factors. Thus, this study is aimed at examining the socio-economic characteristics, production practices and constraints to production among sheep farmers in Yobe State Nigeria.

MATERIALS AND METHODS

Study Area

The study covered four (4) local governments area namely; Damaturu, Tarmuwa, Potiskum and Yusufari in Yobe State where sheep were predominantly reared. Yobe state is located within latitude 11 North and longitude 13.5 East with a total land area of 47,153 square kilometers. It shares common boundaries with Borno state to the east and Southeast, Jigawa state to the northwest, Bauchi and Gombe states to the southwest. It also shares an international border with the Republic of Niger. This boundary stretches over 323km to the North of the State. The population of the State according to the National Head Count conducted is about 2.6 million at the (Census,2006).

Yobe state is politically divided into three geopolitical zones namely; Zone A comprising Damaturu, Gujba, Gulani, Tarmuwa, Bursari, Gaidam, Yunusari; Zone B comprising Potiskum, Fika, Fune and Nangere while Zone C is made up of Bade, Jakusko, Karasuwa, Nguru, Yusufari and Machina LGAs. This makes the total of 17 LGAs in the state.

Data Collection

Well-structured questionnaires were used to collect data on sheep production practices in four (4) Local Government Area of Yobe State Nigeria. The information collected includes; socio-economic characteristics of producers, production practices of respondents as well as constraints to sheep production in the study area.

Sampling Technique

A two-stage sampling technique was used for the study. Three (3) villages were purposely selected from each of four (4) Local Government Areas. Twenty (20) households were then randomly selected from each of these villages making a total of (240) respondents.

Data Analysis

Simple descriptive statistics (frequencies and percentages) was used to analyze the socio-economic characteristics of respondents, production practices as well as constraints to sheep production in the study location.

RESULTS AND DISCUSSION

Table1. Shows the socio-economic characteristics of sheep producers in Yobe State. From the result majority (37.08%) of the respondents were married. This is not unexpected since the job of keeping animals requires several hands such as family and most of the small ruminant farmers depend on family labour. Also, many of respondents (23. 33%) fell within the age brackets of 15-25 and 56 – 65 years, while 17.5% of them were within the age brackets of 26 – 35 and 36 – 45 years, and 9.17% of them were within the age brackets of 46-55 and 66 years above. This indicates the great potential that exists

Table 1: Socio- Economic Characteristics of Respondents

Variables	Frequency	Percent (%)
Age		
15-25	56	23.33
26-35	42	17.5
36-45	42	17.5
46-55	22	9.17
56-65	56	23.33
> 66	22	9.17
Marital status		
Single	60	25
Married	89	37.08
Divorced	43	17.92
Widowed	48	20
House size		
1-5	48	20
6-10	65	27.08
11-15	72	30
>16	55	22.92
Gender		
Male	124	51.67
Female	116	48.33
Education		
Informal	63	26.25
Primary	52	21.67
Secondary	89	37.08
Tertiary	36	15
Occupation		
Farming	106	44.17
Civil servant	48	20
Trading and business	86	35.83

for improved practices since people within this age range are more receptive to new ideas and innovation (Ajala *et. al*., 2008). The result also revealed that those with household size (11-15) produced more sheep (30%) followed by household size of 6-10 (27.08%). Male respondents reared

more (51.67%) sheep than female counterparts (48.33%). This result is in agreement with Hassan *et. al.*, (2015). Also, Braker *et. al.,* (2002) reported that in most African cultures, women are subordinate to men; as such they are socially marginalized in many areas. However, Kosgey (2006) reported that women and children are involved in rearing small ruminants in Kenya. Respondents who had secondary school education were the highest producers of sheep (37.08%) followed by those had informal education (26.25%), while 21.67% are those with primary school education and those with tertiary education were the least producers (15%). From the results, most of the respondents had other occupations alongside livestock production, although most were involved in crop farming produced more sheep (44.17%) compared with other occupations. Ajala and Gefu (2003) reported that small ruminants were kept as adjunct to other businesses especially crop farming. This result is also in consonance with findings of Odeyinka and Okunmade (2005) that smallholder livestock production is a part time business. Also, Dar *et. al*. (1996) stated that small ruminant production augments the dwindling supply of meat and milk in the country, provides additional income to families of smallholders and optimizes utilization of farm resources.

Table 2. Shows the production characteristics of sheep in Yobe State. From the results, most of the producers (50.83%) obtained their capital from personal savings, 25% obtained theirs by inheritance, while 17.92% obtained theirs from gifts and friends and 6.25% from bank loan respectively. The poor patronage of sheep farmers to bank loans may be attributed to stiff collateral requirements for obtaining loans from financial institutions. These results concurred with Ajala (2008) that most small ruminants farmers obtain finance for production from friends and personal savings.

Table 2: Production Practices of Respondents

Variables	Frequency	Percent (%)
Sources of capital		
Personal savings	122	50.83
Bank loans	15	6.25
Gifts from friends	43	17.92
Inheritance	60	25
Sources of sheep		
Market	142	59.16
Inheritance	55	22.92
Neighbour	43	17.92
Management system		
Extensive	89	37.08
Semi-intensive	124	51.67
Intensive	27	11.25
Housing type		
Permanent	70	29.17
Temporary	170	70.83
Labour		
Hired	72	30
Family	168	70
Feeding type		
Concentrate feeding	15	6.25
Zero grazing	37	15.42
Free grazing	188	98.33
Medication		
Monthly	56	23.33
Bi-monthly	64	26.67
Quarterly	120	50
Mating		

Natural mating	228	95
Artificial insemination	12	5

It was also stated that loans obtained from friends are usually small since collateral is not required. The table also shows that many (59.16%) sheep producers purchased their initial stock from the market, while 22.92% inherited initial/foundation stock and 17.92% obtained theirs from neighbors. Similarly, the majority (51.67%) of the producers practiced semi-intensive system of management, which is characterized by increased productivity, less incidence of accidents, theft, predators and diseases, while 37.08% practiced extensive system of management and 11.25% practiced intensive system of management. These finding are in agreement with Ajala and Gefu (2008) for the extensive system of management. They observed it to the cheap, with less labour, although characterized by productivity and high losses due to accidents, disease and theft unlike the semi-intensive system.

Most (70.83%) of the sheep farmers provide temporary houses for their livestock as afforded by the family, while 29.17% provided permanent structures. Housing type usually varies according to the production system, size of operation and environmental conditions. Livestock houses range from very simple structures made only of a roof with no walls to complex systems with solid walls to complex automatic ventilators, feeders and drinkers (Steele, 1996). Majority (70%) of the sheep producers used family labour while (30%) utilized hired labour to carry out their activities.

The results of table 2 also showed the feeding regime practiced by sheep farmers in the study location. Most (78.33%) of the respondents practiced free grazing while 15.42% practiced zero grazing only 6.25% of the producers provided concentrate diets. The table also revealed that most (50%) of the sheep producers in the study location provided medication quarterly, while (26.67%) provided bi-monthly and 23.33% provided medication monthly. Livestock health is very important to production and reproduction because diseases, pests and parasites can result in high mortality and morbidity (Chukwuma, 2012), such as majority of the respondents administered one form of medication or the other monthly.

Many (97%) of the sheep producers practices natural (indiscriminate) mating, while 3% practice artificial insemination. With indiscriminate mating, there is high probability of inbreeding since flock sizes are generally small. Consequently, inbreeding depression may set in and genetic gain may gradually decline. This result is in consonance with reports by Hassan *et al* (2015). Who stated that uncontrolled mating limit reproduction rates.

Table 3. Shows the constraints to sheep production in the study area. From the study the major constraints to sheep production were lack of initial capital (25.42%) followed by theft and predators (22.5%) then poor management techniques, while 20% diseases and parasites. This result is in agreement with Kipronoh *et al* (2016), who reported that incidence of disease is one of the main constraints affecting small ruminant production. They also stated that other factors such as shortage of feed/browse, scarcity of water, rustling by neighboring communities and poor market prices were amongst the other constraints affecting sheep production.

Table 3: Constraints to Sheep Production

Variables	Frequency	Percent (%)
Lack of capital	61	25.42
Disease and parasites	48	20
Poor Management/techniques	45	18.75
Theft and predators	54	22.5
Inadequate infrastructure	32	13.33

CONCLUSION AND RECOMMENDATION

Arising from the findings of the study, it can be concluded that majority of the sheep producers are males within the age bracket of 15 - 25 and 56 - 65 years and most of them had secondary school education. Lack of initial capital as well as theft, predators, disease and parasites constraints to sheep production in the study location. It is therefore recommended that sheep producers should come together to form cooperatives there-by enabling them have access to loans as well as consult livestock and veterinary officer to assist them with health challenges of their sheep.

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