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Current Structures and Constraints to Small Ruminants Rearing in Southeastern Nigeria

C.C. Achonwa[1], I.H. Kubkomawa[2], V.O. Iyiola[3], I.C. Okoli[1] and M.C. Uchegbu[1]
[1]Department of Animal Science and Technology, Federal University of Technology, Owerri, Nigeria; [2]Department of Animal Health and Production Technology, Federal Polytechnic, Mubi, Adamawa State, Nigeria; [3]Department of Animal Production and Health, Federal University Wukari, Wukari, Taraba State, Nigeria
Corresponding author: C.C. Achonwa; E-mail: chukwumachristian1@gmail.com

Abstract
Small ruminant production has suffered a lot of setbacks due to several factors militating against its optimal productivity. Therefore, this study looked at the current structures and constraints to small ruminant rearing in the southeastern location of Nigeria. Data were generated from 45 households surveyed during the study through the use of questionnaires and interviews. The result showed that West African Dwarf (WAD) breeds of sheep and goat were predominant in the area and majority of the farmers practiced semi-intensive system of rearing. Diseases and feed shortages were the major constraints experienced by farmers of which domestication of certain browses adaptable in the area will help to optimize productivity.

Keywords: Small ruminant, *Ficus microcarpa*, southeastern Nigeria

Introduction

The livestock industry in Nigeria contributes greatly to the national wealth of the population and also supplies animal protein which is required for healthy living. Presently, in southeastern location of Nigeria, livestock production is based on age-old husbandry systems which are under gradual modification in order to meet consumers need.

Over the years, small ruminant rearing has suffered a lot of setbacks due to several factors militating against optimal livestock production in the area. These constraints are of varied importance depending on the location and objective of production. Some of these constraints include but not limited to inadequate nutrition, diseases and health challenges, urbanization, deforestation, youth apathy, scarcity and seasonal availability of feed resources as well as land ownership and usage (Okoli *et al*., 2010; Tadesse, 2012). Moreover, tsetse flies infestation, expanding human population and concomitant bush clearing for farming have also contributed to the reduction of agricultural activities in this zone of Nigeria (Bourn, 1983).

Therefore the present study looked at the current structures and constraints to small ruminant rearing in southeastern location of Nigeria.

Materials and Methods

The study was carried out at Nnobi community in Anambra State, Nigeria. The location lies between latitude 06°00'N and 06°05'N and longitude 06°57'E and 06°95'E within the southeastern derived savanna location of Nigeria. This location was selected due to their active participation in small ruminant rearing. A total of 45 households were visited and primary data on current structures and constraints to small ruminant rearing in the location were generated through surveys, interviews and direct field observations.

The data generated were subjected to descriptive tools such as frequency counts and percentages presented in tables

RESULTS AND DISCUSSION

The study shows that majority of the small ruminant farmers (60.0%) in the location reared mostly goats as this was similar to earlier report of Chah *et al*. (2013) in the same southeastern location of Nigeria. Farmers here reared majorly West African Dwarf (WAD) breeds of small ruminants as it has been reported to manifest high degree of adaptability and trypano-tolerance in the area (Ebegbulem *et al*., 2011)

Semi-intensive system of management is mostly adopted which could be attributed to the fact that farmers confine their animals during planting season to avoid destruction of crops while animals are sometimes left to roam freely especially during the dry season when feed is in short supply. The restriction of animals at different periods of the year is because of farmers in this location practice agro-pastoralism.

Table 1: The structure of small ruminant keeping at Nnobi

Parameters	Awuda (n=15) Frequency (%)	Ebenesi (n=15) Frequency (%)	Ngo (n=15) Frequency (%)	Overall (n=45) Mean Frequency (%)
(a) Type of ruminants				
Goat	8 (53.33)	10 (66.67)	9 (60.00)	27 (60.00)
Sheep	3 (20.00)	1 (6.67)	1 (6.67)	5 (11.11)
Goat and sheep	4 (26.67)	4 (26.67)	5 (33.33)	13 (28.89)
Cattle	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
(b) Sex distribution of animals				
More Males	2 (13.33)	1 (6.67)	0 (0.00)	3 (6.67)
More Females	13 (86.67)	14 (93.33)	15 (100.00)	42 (93.33)
(c) System of rearing				
Intensive	5 (33.33)	3 (20.00)	8 (53.33)	16 (35.56)
Semi-intensive	8 (53.33)	12 (80.00)	6 (40.00)	38 (57.78)
Extensive	2 (13.33)	0 (0.00)	1 (6.67)	3 (6.67)
(d) Reasons for keeping ruminants				
Monetary investment	15 (100.00)	15 (100.00)	15 (100.00)	45 (100.00)
Manure	3 (20.00)	2 (13.33)	2 (13.33)	7 (15.56)
Meat	13 (86.67)	12 (80.00)	12 (80.00)	37 (82.22)
Social function	6 (40.00)	6 (40.00)	9 (60.00)	21 (46.67)
(e) Types of browses offered to animal				
Ficus microcarpa leaf	15 (100.00)	15 (100.00)	15 (100.00)	45 (100.00)
Palm frond	12 (80.00)	11 (73.33)	12 (80.00)	35 (77.78)
Kitchen waste	15 (100.00)	15 (100.00)	15 (100.00)	45 (100.00)
Avocado pear leaves	10 (66.67)	11 (73.33)	11 (73.33)	32 (71.11)
Mango leaves	12 (80.00)	12 (80.00)	12 (80.00)	36 (80.00)
Ricinodendron heudelotii (Okwe)	5 (33.33)	6 (40.00)	5 (33.33)	16 (35.56)
Bread fruit leaves	4 (26.67)	5 (33.33)	5 (33.33)	14 (31.11)

Small ruminants were kept for the following reasons: as a source of manure, for meat production, income for farmers as well as for social functions. Majority of the farmers kept small ruminant for monetary investments as it provides income/cash for them to meet their household emergencies like paying of school fees for their children, hospital bills and other anticipated and unanticipated expenditures. Small ruminants in this location were fed with available browse plants indigenous to the area and easily accessible to the farmers with *Ficusmicrocarpa*and*Mangiferaindica*leaves been the most use browses. Majority of these browses are trees that produce human food and are primarily planted in the compound bushes for that purpose, while use in feeding livestock is secondary (Okafor and Fernandez, 1987)

Table 2 revealed the factors that influence small ruminant rearing in the location of which nutritional factors/resource availability has more influence on small ruminant production. This is due to the limited quality of nutrients and lack of year-round supply of feed in the zone. Various constraints were found to militate against increased production of small ruminant in the location such as disease challenge as major constraints, feed shortage, youth apathy and land scarcity due to structural development.

Conclusion

This research showed the current picture of small ruminant production in southeasternderived savannah location of Nigeria. Most of the challenges could be tackled through domestication of certain browses adaptable to the area and intervention by health practitioners could help optimize productivity.

Table 2: Factors of influence and constraints to ruminant keeping at Nnobi

Parameters	Awuda (n=15) Frequency (%)	Ebenesi (n=15) Frequency (%)	Ngo (n=15) Frequency (%)	Overall (n=45) Mean Frequency (%)
(a) Factors of influence				
Seasonal influence	2 (13.33)	5 (33.33)	3 (20.00)	10 (22.22)
Developmental influence	5 (33.33)	3 (20.00)	7 (46.67)	15 (33.33)
Resource availability/ Nutritional influence	8 (53.33)	7 (46.67)	5 (33.33)	20 (44.44)
Ecological influence	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
(b) Constraints and challenges to livestock keeping				
Youth apathy	6 (40.00)	6 (40.00)	8 (53.33)	20 (44.44)
Feed shortage	8 (53.33)	12 (80.00)	10 (66.67)	30 (66.67)
Modernization/Shrinking land	3 (20.00)	4 (26.67)	4 (26.67)	11 (24.44)
Diseases	12 (80.00)	10 (66.67)	10 (66.67)	32 (71.11)

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