Ethnoveterinary Practices in the Treatment of Skin Disease (*Mange*) in Small Ruminants in Kwara State, Nigeria

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ABSTRACT

This survey investigates the ethnoveterinary practices in the treatment of skin diseases in small ruminants in Ifelodun and Irepodun L.G.As of Kwara State between June and December 2011. The aim of this study is to investigate the benefits and problems associated with ethnoveterinary practices among small ruminants' livestock in Ifelodun and Irepodun L.G.As of Kwara State, Nigeria. Structured questionnaire was used to gather data from 162 randomly selected farmers using multi-stage sampling technique. The study uses descriptive statistics to analyse the data. Majority of the respondents are male and mostly subsistence farmers. It was a hobby to majority of the farmers to keep small ruminants. About 60% kept them on semi-intensive system with flock size of 75-105 sheep/goat per farmer. All of the respondents agree that mange is the commonest skin disease in the area. Majority of respondents treated the skin disease with used engine oil, sulphur, kerosene and battery carbon. All the respondents found this local medicament accessible, easy, simple, cheap and affordable. Based on this findings, ethnoveterinary practice can enhance good health and productivity of small ruminants. Therefore it recommends that policy makers should formulate policies that would enhance the integration of conventional animal treatment with indigenous (ethnoveterinary) treatment of domestic animal. In addition, there is need for more research into other diseases of small ruminants that are treated by ethnoveterinary practice among the rural livestock owners in Nigeria.

Keywords: *Ethnoveterinary, Small ruminants, Skin diseases, Ifelodun, Irepodun.*

INTRODUCTION

Most of the developing countries including Nigeria rely partly on traditional herbal medicine for treatment and control of animal and human diseases. Traditional veterinary practices play important role in livestock production in Nigeria (Kudi and Myint, 1999). The absence of adequate conventional animal health care systems in the rural communities makes them rely on traditional medicine for their primary health care (Schillhorn van veen, 1997; Alawa, Jokthan and Akut, 2002). It is considered when no effective therapy is available (Kolawole, 2001). It is easily accessible compared to conventional drugs, easy to prepare and administer, cost very little or nothing at all, it is part of one's culture and it is environmental

friendly (Adedapo, Dina, Saba and Oladipo, 2000; Ngeh, Wanyama, Nuwanyakpa and Django, 2001). Although limited scientific researches have focused on the use of herbal remedies in animal health care in Kwara State, Nigeria, many of the plants used in human medication in this region are also applied in ethnoveterinary practice. Some plants utilize in ruminant feeding in this area are also used to treat various illnesses of animals (for example, *Aspilia Africana* among others) have been positively identified to have prophylactic properties (Chah, Igbokwe and Chan, 2009). The hot water extract of *Ocimum grattisium* in dogs produced a significant reduction in the duration of emesis comparable to that of metaclopromide, a standard antiemetic drug (Udem and Opara, 2001).

Also, *Gulenia senegalensis, Anogassus leocarpus* and *Selerocarya birrea* have been found useful in overcoming parturition difficulties in domestic animal (Hassan and Zalla, 2005). About 25% of our conventional drugs are plant derived in a traditional format (Schillian van veen, 1997). The World Health Organization states that 74% of plant derived medicine have modern indications that correlate with their traditional and cultural uses (Wynn, 2001). Also, about 80% of the world population, mostly in developing countries are poor and depend on traditional medicine for their primary health care (Gefu, Abdul and Alawa, 2000). This study therefore focuses on the identification and validation of ethnoveterinary practices in the treatment of skin diseases in small ruminants in Kwara State.The work investigates the benefits and problems associated with ethnoveterinary practices among small ruminants livestock in Ifelodun and Irepodun Local Government Area of Kwara State, Nigeria.

MATERIALS AND METHOD

This study adopted survey research design. Multi-stage sampling technique was employed to randomly select 162 respondents from four systematically selected towns in two local government areas in Kwara State. An initial survey was carried out to identify farmers in each town having small ruminant animals (sheep and goat), and based on the results, four towns namely Igbaja, Oke-ode, Omu-aran and Oro were purposely selected in Ifelodun and Irepodun Local Government Areas of Kwara State. The purpose was to achieve maximum sample variation in the use of ethnoveterinary practices in treatment of skin disease (*mange*) in the study area. The area has a fairly uniform temperature of 29°C with moderate seasonal rainfall. The choice of the area for the study is based on the fact that most of the people in the study area engage in extensive rearing of West African Dwarf goats and sheep. Primary data were collected from the respondents with the aid of structured questionnaire and interview. One hundred and sixty two farmers were visited and questionnaire administered. Each farmer was interviewed in Yoruba and their response recorded as shown on the questionnaire indicating socio-economic characteristics and health management practices of the respondents. One hundred per cent of the questionnaire distributed were retrieved for analysis. The study employed the use of descriptive statistics such as mean, frequency distribution and simple percentage to analyze the data collected.

RESULTS AND DISCUSSION

The Socio-Economic and Health Management Practices in Ifelodun and Irepodun Local Government Areas of Kwara State Nigeria according to our findings in this study are presented on tables 1-3. All the respondents agreed that skin disease was common during rainy season. Skin infestations in sheep and goat are sometimes grouped under the common disease, term *mange*. This disease cause significant losses and waste to the sheep and goat industry, economic losses result from a reduction in the amount of meat and quality of wool/fiber produced. It can occur at any age but tends to be more common in adult animals. All the respondents agreed that skin disease (*mange*) was common problem of small ruminant in the study area. They all agreed that physical contact play a major role in the transmission or spread of the disease. The number of small ruminant farmers is higher in Ifelodun Local Government Area than Irepodun Local Government Area (table 1). Also significant proportion of the farmers are male while others are female. Majority of the respondents are subsistent farmers and greater ratio of the respondents sourced funds from personal savings. Majority of the farmers are satisfied with the small ruminant farming in the area. Respondents state that the major signs and symptoms of disease attack were rubbing of the body against the wall, ruffled fur, falling of hair, white scaly skin and formation of scab. From the study, a significant proportion of the respondents treated their animal with skin problems by traditional method (used of engine oil, kerosene, sulphur and battery carbon) which they found easy to prepare, cheap and affordable. The study also shows that there is low documentation of ethnoveterinary knowledge in Kwara State. This study has been able to document local remedies used in the treatment of skin disease (*mange*) in small ruminants as alternative to conventional medicine. Most of the respondents had no doubt about the potency of the ethnoveterinary remedies but there was no scientific evidence to back this up. Ethnoveterinary practice can enhance good health and productivity of small ruminants in Kwara State. Hence, increase in protein intake of the populace.

Table 1: Frequency distribution of the respondents according to their socio-economic characteristics

L.G.A.	**Frequency**	**Percentage**
Ifelodun	98	60.49
Irepodun	64	39.51
Sex		
Male	113	69.5
Female	49	30.5
Main occupation		
Subsistence farmer	120	74.3
Trading	26	16.9
Artisan	7	4
Civil servant	9	5.7
Source of capital		
Personal saving	135	83.0
Friends	5	3.1
Relations	25	14.0
Level of fulfillment		
Satisfactory	152	92.8
Good	10	7.2
Fair	-	-

Source: Field survey, 2011

Table 2: Frequency distribution of the common diseases in the study area

Diseases	Frequency	Percentage
Skin disease	120	74
Other problems	42	26

Source: Field survey, 2011

Table 3: Frequency distribution of the material being used in the treatment of skin disease in Kwara State

Material used	Frequency	Percentage
Used engine oil	90	55.80
Sulphur	85	53.40
Kerosene	77	48.30
Battery carbon	72	45

Source: Field survey, 2011

CONCLUSION AND RECOMMENDATIONS

The study investigated the ethnoveterinary practices in the treatment of skin diseases in small ruminants in Ifelodun and Irepodun Local Government Areas of Kwara State. All of the respondents agree that *mange* is the commonest skin disease in the area. This study therefore concludes that ethnoveterinary practices is cheap and affordable for rural farmers and can enhanced good health and productivity of small ruminants especially where access to conventional veterinary medicine is limited. Policy makers should therefore formulate policies that would enhance the integration of conventional animal treatment with indigenous (ethnoveterinary) treatment of domestic animal. Scientific standardization of ethnoveterinary practices will enhance their acceptance across culture and among professionals. Formation of farmers association or cooperative is vital in promoting the utilization of ethnoveterinary practices amongst the farmers. Government need to encourage researchers to improve on the existing indigenous knowledge systems through grants.

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