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# ETHNO VETERINARY MEDICINE AMONG SMALL RUMINANT FARMERS IN YEWA NORTH LOCAL GOVERNMENT AREA OF OGUN STATE, NIGERIA

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## ABSTRACT

The practice of ethno veterinary medicine among small ruminant farmers in Yewa North Local Government Area of Ogun state, Nigeria was examined. To obtain information used for this study, one hundred and ten (110) structured questionnaires were administered to small ruminant farmers within the eleven wards of the local government. It was observed that ethno veterinary practices were carried out by 26% of the small ruminant farmers. Herbal plants used include *Ficus capensis*, *Acistrophylum secundiflorum*, *Kigelia africana*, *Lophiralanceolata*, *Ocimum gratissimum*, *Ehretia cymosa*, *Vitellaria paradoxa* and *Desmodium gangeticum*. The major reasons for their adoption are that ethno veterinary medicine is cheap, effective, accessible and practicable.

## 1. INTRODUCTION

For animals to be in good health and perform satisfactorily, disease must be kept to a minimum. This calls for a high efficiency of management and also good husbandry in order to minimize loss due to disease and parasites. Continuous medication can sometimes reduce the effect of disease and parasitism but these conventional medicines and vaccines are expensive, coupled with the lack of knowledge on their use (Sharma, 2005). Also these drugs are usually out of reach of the small-scale farmers. There is therefore need for cheap, easy to use and sustainable disease control programs.

Since ancient times, plants and plant parts are an indispensable source of medicine for indigenous livestock production system (Ernst, 1998). Documentation of herbal plants is necessary because they are likely to be more important in the future, especially given the escalating cost of drugs and the focus on organic products in most developed countries. Under certain circumstances, the use of ethno veterinary medicine may be more appropriate than the use of conventional medicine. The abuse of certain potent conventional medicines such as antimicrobial agent could lead to the development of microbial resistance with resultant negative effects on public health. Residues of conventional drugs in food of animal origin as a result of the abuse of these medicines can also limit the development of sustainable livestock production by resource poor farmers. The use of low-cost ethno veterinary medicines with known efficacy and safety can therefore be more appropriate even if conventional medicines with greater potency are available (Waller, 1993).

The purpose of this study is to know the prevalent and effective traditional preparations used for health management in small ruminant (sheep and goats) production systems and the merits it may have over orthodox methods.

## 2. MATERIALS AND METHODS

### a. Study Area

A botanical study was conducted in Yewa North local government area which is one of the twenty local government areas in Ogun state, Nigeria. There are eleven wards in this local government. The inhabitants are mainly Yoruba, speaking various dialects like Yewa, Ketu, etc. Their major occupation is farming consequent upon the large expanse of fertile land. The area is essentially a semi-savannah vegetation area endowed with conducive climate conditions for agricultural pursuit throughout the year.

### b. Method of Data Collection

Structured interview schedule consisting of open and close ended questions was used for primary data collection. Ten questionnaires were administered in each ward making one hundred and ten small ruminant farmers sampled in all. Stratified sampling technique was used to select the villages and towns under the eleven wards. Data collected were the personal characteristics, stock size and type, livestock management system, disease conditions observed and various herbal treatments, availability and access to veterinary services. In this publication, only the disease conditions observed and various herbal treatments were discussed.

### c. Analysis of Data

Descriptive statistics such as frequency counts and percentages were used to summarize the personal characteristics of the small ruminant farmers.

### d. Results and Discussion

Majority of the livestock farmers (82%) have access to veterinary services while the remaining 18% that do not have access are as a result of long distance which hinders the veterinary doctors from reaching them. Conventional and traditional animal health medicine was practiced by 24% of the livestock farmers, 84% adopted only conventional medicine. 26% use solely traditional medicine while 74% do not practice traditional medicine in handling health problems of their livestock.

Cases of fever, rapid breathing, sneezing, coughing, respiratory disorder, catarrh and nasal discharge were reported by the livestock farmers. Some farmers use mixtures of Shea butter (*Vitellariaparadoxa*) and ointment applied to the nose of animals in cases of respiratory disorder and nasal discharge. The use of blended leaves of *Lophiralanceolata* with little quantity of salt added to fresh feed to treat respiratory disorder and also used by some of the livestock farmers. Drenching animals with a mixture of lime and palm oil was mentioned by other livestock farmers to treat cases of cold and catarrh. This same symptom was treated by other farmers with the use of *Capsicum spp* and *Allium spp*. These substances were chopped, placed in a calabash with water added. Morbid animals are allowed to drink this water. Combined of fever, sneezing, coughing, catarrh, respiratory discharge and related symptoms were treated with the leaves of *LonchocarpusSericeus*, *Hannoaundulata*, *Urariapicta*, *Ipomea involucrate*, *Croton zimbicus*, *Macrosphyralongisryla*, *Carica papaya*. Some of the livestock farmers reported the combined use of all these leaves with palm oil. The leaves are soaked in a calabash filled with water while animals are allowed to drink from this water. Amongst these livestock farmers, some make few different combinations of these plants for the same disease symptoms. Recovery from these diseased conditions was between 4 days and 2 weeks. Okitoi et al., (2007) reported the use of *Capsicum annum* for the treatment of respiratory diseases among indigenous poultry farmers in Western Kenya.

Ecthyma was noticed by the livestock farmers. Mixture of palm oil and salt were applied on the lips. Recovery was within a week. Some farmers applied slurry from palm oil processing to treat this disease condition. Problems of salivation, foaming at the mouth and swollen stomach (bloat) were also mentioned by some of the livestock farmers. Animals were treated by drenching them with palm oil. Livestock farmers made use of leaves of *Ficuscapensis*, *Ancistophyllumsecundiflorum*, *Kigeliaafricana* and *Lophiralanceolata* to treat this condition. All these leaves were soaked in a calabash filled with water with palm oil added for animals to drink. Animals were noticed to

return to normal conditions between 3-5 days. Eniolorunda (2003) reported the use of "Omi Kikan" and palm oil for the treatment of serious pain and foaming in animals.

Wounds were treated by placing the stems of *Momordicacharantia* in fire and squeezing the hot extract on it. The extract from *Ocimumgratissium* (efirin) was also squeezed on wound by some of the livestock farmers. The leaves of *Lophiralanceolata* and *Desmodiumgangeticum* were also applied to wounds. Grindlay and Reynold (1986) reported the use of *Aloe vera* in treating wounds. Mange was treated with blended leaf of *Ehretiacymosa* mixed with palm oil and rubbed all over the infected part of the animal. Slurry of processed palm oil was also rubbed all over the animals by some of the livestock farmers. Some of the livestock farmers made use of ripe pawpaw fruit. This was cut into half and rubbed all over the animal. These various methods were applied frequently until the animal grows back all the fallen hair and return to normal. Recovery begins two weeks after treatment as mentioned. Peacock (1996) reported that Ethiopian goat keepers boil the leaves of the castor-oil plant (*Ricinuscommunus*) to provide a viscous liquid which they use to control mange in their goats.

Various gynaecological conditions were observed and discussed by the small ruminant livestock farmers. Cases of abortion were treated with leaves of *Cissampelosmucronata*, bark of *Parkiibiglobosa*, *Terminaliamacroptera*, *Diosceracayensis*, *Bridelamicrantha*, *Sphenorentrumjollyonum*. These are all blended and incorporated into feed of animals. Subsequent conception and parturition were reported successful after animals were treated for a period of one month after initial abortion. The plant *Cissampelosmucronata* is popular among traditional healers in Nigeria in treatment as anti diarrhea. Traditionally the root bark is used to relieve dysmenorrhea, to prevent abortion and also

as a sedative (Ogwal et al., 1996). Eniolorunda (2003) reported the use of concentrated infusions made from squeezing *Usteriaquineensia* and *Hyptispectinata* for treatment of brucellosis. Difficult parturition was treated with fresh leaves of *Spondiasmombin* fed to animals which result in successful parturition after few hours of consumption. Fermented water from soaked pap containers (Omi lhaho) was administered in cases of bleeding after parturition. These they ascertain stops bleeding after parturition. Matekaire and Bwakura (2004) reported .the treatment of delayed parturition by placing in the vagina, crushed fresh stem and leaves of *Cassius quandrangularis* to hasten parturition.

Cases of retained placenta were treated with the leaves of *Spondiasmombin* which cause expulsion of the placenta after consumption of leaves within a couple of minutes. Whole burnt maize was also fed to animals by some farmers. These they said gave the desired results of expulsion of the placenta also within couple of minutes. Some of the livestock farmers use broom to create pressure from the back of animals to the tail region. These they repeat several times until the placenta is ejected. Matekaire and Bwakura. (2004) reported the treatment of retained placenta (afterbirth) with the use of fresh leaves of *Fauzzoziamixta*, that are crushed and the slippery paste inserted into the vagina. Prolapsed uterus was also reported. Soot from iron pots were collected in a cloth and gradually used to push the prolapsed uterus inside. The leaves of *Parquetinanigrescens* and fermented maize slurry (Ogi) were also fed to animals. These they claim hasten the relocation of the prolapsed uterus.

### 3. CONCLUSION

Small ruminant farmers have no doubt about the potency of the herbal preparations and treasure indigenous knowledge and these were handed over by past generations to sustain the low imput extensive free-range system of livestock production. The wild was the main source of medicinal plants for medical remedies in livestock production and only few were cultivated. Farmers and the use of more than one plants which shows their broad spectrum approach. Morbidity and mortality are the major constraints in Organic livestock production; hence integration with ethno veterinary medicine would provide a significant solution as these plants are organic in nature with no problem of residues in food of animal origin as seen in conventional drugs. In conclusion, these findings suggest that herbal extracts may play important roles for antimicrobial activities against small ruminant livestock related disease.

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