

ASSESSMENT OF THE USE OF ETHNO-VETERINARY MEDICINE IN POULTRY HEALTH MANAGEMENT IN IWO LOCAL GOVERNMENT AREA OF OSUN-STATE, NIGERIA

F.A. Aderemi.,*O.M. Alabi., and O.O. Olaleye

Department of Animal and Fisheries Management, Bowen University (of the Nigerian Baptist Convention), Iwo.

*Corresponding author: femiatom@yahoo.com

ABSTRACT

The extent to which the use of herbal medicine is accepted among the poultry farmers was investigated. Sixty-eight (68) poultry farmers within Iwo local government of Osun-state responded to the structured questionnaire. Primary data generated were analyzed using descriptive statistics. Acceptability of ethno veterinary medicine in poultry farming was not influenced by age, gender, education, production type and experience but by fear of application, awareness, efficacy and availability. Farmers are yet to exploit the use of herbal medicine in poultry production in the local government area so surveyed.

Keywords: Acceptability, Herbal medicine, Poultry health, Poultry farmers

INTRODUCTION

Livestock production is an important and integrated component of the agricultural production system in developing countries. In fact, it plays a significant role in supporting farmer's income and provision of food (Kohler *et al*, 1996). However, among the factors limiting livestock production especially poultry in the tropics are diseases, weather condition and low genetic potential of the indigenous animals, poor feeding and management, lack of training and experience of local people in animal husbandry and absence of infrastructures necessary to provide the needed inputs for production, processing and distribution (Wilson and McArchur, 1992). Productivity in commercial poultry farming in Nigeria is severely limited by disease (Ladan, 1998), and thus diseases problem is unquestionably a major limiting factor in the improvement of tropical livestock production (Warren, 1991).

Control of diseases in livestock relies mainly on the use of synthetic drugs and vaccines in combination with biosecurity. Unfortunately, high cost of the drugs and vaccines and their erratic supplies has compelled the farmers to start exploiting alternative means of prophylaxis and therapy against various infections and infestations. Also, it has been severally reported that the prolonged usage of these synthetic drugs may lead to residue deposition within the animals flesh and internal organs the consumption of which is considered as a health risk (Jegade, 2003). Moreover, the pathogens also develop a drug resistance as a result of continuous usage.

Ethno-veterinary medicine offers great potential of development and provides a lower cost alternative to allopathic medications (Warren, 1991). Unfortunately, many local,

national and international organizations have not yet recognized the role of ethno-veterinary medicine in livestock development unlike the human ethno-medicine which has been widely recognized and used by various commercial and developmental organizations (IIRR, 1996).

Traditional livestock owners have an excellent knowledge of ethno-botany, which has formed the basis for screening plant materials as potential sources of medical drugs (Anderson and Walker, 2001). Many herbs have been used successfully against various infections among livestock in Nigeria. The latex of *Carica papaya* (pawpaw) leaves has been used against *Ascaridia galli* of chickens. The seeds of *Leucaena leucocephala* has been used against chicken mite; *Hymenolepis nana* (Nwude, 1997).

Lime water has been used to treat Newcastle disease, soaked native melon effluent has been used to prevent gumboro disease, bitter leaves and pawpaw leaves have been used to treat coccidiosis (Jegade *et al*, 2007).

This work therefore investigated the extent to which herbal medicine has been adopted by poultry farmers within Iwo local government area of Osun-State, Nigeria.

MATERIALS AND METHODS

Primary data was generated and used to make some inferences on the research objective. Structured questionnaire was developed and distributed to the poultry farmers (respondents) without bias. The questionnaire emphasized on the background of the farmers with respect to age, gender, marital status, level of education, year of experience and the type of birds being kept with the current stock positions. Questions were further raised on the common diseases peculiar to their farms and how they are being treated and or prevented, their level of

awareness about ethno-veterinary medicine, the type of herbs they have used, efficacy of the herbs and the limitations.

The questionnaire was administered to sixty-eight (68) respondents and were later analyzed with simple descriptive statistics.

RESULTS AND DISCUSSION

Table 1 shows the background of the respondents within the surveyed area. 62.51% of them were male and 37.49% were female revealing that men get involved in poultry farming more than the women. Majority of the respondents (40.63%) were within the age bracket of 41-50 years while many of them (50.00%) had tertiary education and few (3.14%) had just primary school education. Few of them (15.69%) had long years of experience on the job (>20 years) while majority (31.31%) had 6-10 years of experience. Meanwhile, 85.87% were mainly into layers (egg type chickens) production, 4.82% mainly into broilers production and 9.52% were mainly into cockerels rearing but none of them was into breeders production. A lot of them however (65.62%) were having stock below 500 birds, 25.04% were having 501-1000 birds, 6.32% having 1001-5000 birds and 3.12% having more than 5000 birds. Majority of the poultry farmers within Iwo local government area had stock they can maintain with the limited resources available to them due to lack of incentives from governments and or the banking institutions within the community. Those having larger stock (5000+) were full time farmers with longer years of experience on the job and with enough tangible properties that can serve as collateral whenever they need loan from banks within the area.

Table 2 shows the response of the poultry farmers to the adoption of herbal medicine for treating diseases within their farms. The common poultry diseases in the study area were viral (fowl pox, Marek's, gumboro, Newcastle disease) which carries 51.19% of the distribution closely followed by protozoal (coccidiosis); 20.04%, bacterial diseases (21.64%) and lastly fungal diseases (3.13%). Also, 70.82% of the respondents laid more emphasis on prevention rather than treatment (29.18%) while vaccination is the commonest mean of prevention (55.32%) than medication (35.98%) and biosecurity (8.70%).

Moreover, synthetic drugs were much more preferred (87.50%) than herbs (12.50%) in terms of efficacy and availability. Meanwhile, 56.25% of the respondents were not aware of the use of herbs against poultry diseases while 43.75% were aware. Those not using herbs revealed that lack of proper education (10.00%), fear of

unknown (40.00%), poor processing method (20.00%), poor standardization (10.00%) and unavailability (20.00%) were reasons for not adopting ethno-veterinary medicine in poultry production. Nevertheless, 16.67% of the respondents were inclined towards the use of herbs if the need arises but with more enlightenment while 83.33% were not ready to adopt it now.

CONCLUSION

The findings revealed that the opportunities in herbal medicine for poultry production have not been exploited by the poultry farmers in Iwo local government of Osun-State. Further awareness must be created to sensitize the poultry farmers.

ACKNOWLEDGEMENT

The authors wish to acknowledge the assistance rendered by the executives and members of Poultry Association of Nigeria (PAN) Iwo zone of Osun-State chapter during this research work.

REFERENCES

- Anderson, C and Walker, R. (2001): *Somali ethno-veterinary medicine and private Animal health Services*. Somalian Min. of Agric. Bull. Vol. 2
- IIRR; International Institute for Rural Reconstruction (1996): *Paraveterinary Medicine*. McCorckle (Eds). 2nd Ed. pp: 54-65.
- Jegade, O.C. (2003): *Studies on the Toxicity and Antihelminthic activities of extracts of Spigelia anthelmia against Nippostrongylus braziliensis in rats*. Bull. Dept. of Vet. Parasitology and Entomology. ABU: vol. 1. pp: 87.
- Jegade, O.C., Ikani, I.E., Dafwang, I.I and Annate, A.I. (2007): *Traditional Animal health care practices in disease prevention and control by small ruminant farmers in Oyo-State*. Nig. J. of Food, Agric. & Env. Vol. 5 (3&4), pp: 163-164.
- Kohler, R.I., Rathore, H.S and Dewasi, D.R. (1996): *Livestock Production and Disease in the Tropics: Livestock Production and Human Welfare*. Proc. VIII Int. Conf. of Inst. of Tropical Vet. Medicines. Vol. 2: 591.
- Ladan, J. (1998): *Animal Agriculture in West Africa*. Proc. Joint Silver Ann. Conf. Nig. Soc. for Anim. Prod. (NSAP) and West African Soc. for Anim. Prod. (WSAP). Inaugural Conf. Abeokuta, Nig. pp: 80-83.
- Nwude, N. (1997): *Ethno-veterinary pharmacology and Ethno-veterinary practices in Nigeria: An overview*. Trop. Veterinarian. (15): 117-123.
- Warren, D.M. (1991): *Using indigenous knowledge in Agricultural Development*. World

Bank Discussion Papers. The World Bank, Washington, D.C.

Wilson, W.O. and McArchur, C. (1992): Tanin chemistry in relation to digestion. *J. Range Management*, 45:57-62.

Table 1: Socio-economic Background of the Poultry Farmers

Parameters	Components	Distribution (%)
Gender	Male	62.51
	Female	37.49
Age (years)	20-30	9.40
	31-40	18.75
	41-50	40.63
	>50	31.25
Education	Primary	3.14
	Secondary	43.82
	Tertiary	50.00
	Informal	3.14
Experience (years)	<5	25.00
	6-10	31.31
	11-20	28.11
	>20	15.69
Production Type	Broilers	4.82
	Layers	85.78
	Cockerels	9.51
	Breeders	0.00
Stock Size	<500	65.62
	501-1000	25.04
	1001-2000	6.32
	2001-5000	3.12
	>5000	0.00

Source: Field Survey, 2009.

Table 2: Survey of the use of Ethno-veterinary Medicine

Parameters	Components	Distribution (%)
Common diseases	Bacterial	21.64
	Viral	51.19
	Fungal	3.13
	Protozoal	24.04
Solution to Diseases	Prevention	70.82
	Treatment	29.18
Solution Methods	Vaccination	55.32
	Medication	35.98
	Biosecurity	8.70
Medication	Synthetic drugs	87.50
	Herbs	12.50
Preference For Drugs	Efficacy	40.63
	Availability	59.37
Awareness of Ethnovet	Yes	43.75
	No	56.25
Reason for not using herbs	Lack of education	10.00
	Fear of unknown	40.00
	Poor processing	20.00
	No standard	10.00
Readiness to adopt use of herbs	Inavailability of herbs	20.00
	Yes	16.67
	No	83.33

Source: Field Survey, 2009.