



Anchoring Livestock Production for Sustainability in Katsina State, Nigeria: The Role of Information Use

Suleiman Idris

PhD. Research Scholar, SRM University Delhi-NCR, Sonapat-Haryana, India

Email: jsuleiman@fudutsinma.edu.ng

Abstract— Most Livestock farmers in Nigeria lack orientation on the current trends and best practices in livestock farming. This study is aimed at investigating the role of information use in livestock production in Katsina State. For the objective to be achieved, quantitative research method was adopted, while survey design was employed respectively. Livestock farmers in Daura, Dandume and Jibia local governments formed the population of the study. The study adopted cluster sampling technique. 75 out of 600 livestock farmers were randomly selected from the livestock farmers' clubs/associations in the local government areas of study in Katsina state. However, self-developed and structured questionnaire was used as an instrument for data collection. The study revealed that breeding techniques, new breed varieties, access to market, credit/loan facilities, livestock disease control and milk processing were the type of agricultural information utilised by the livestock farmers in the local government areas studied for sustainable animal production. It was also found that breeding techniques, new breed varieties, access to market, milk processing, climate, weather, credit/ loan facilities, price of antibiotics, transaction costs, and livestock disease control were the type of agricultural information the livestock farmers prefer most to utilised in the local government areas studied. The need to utilise agricultural information on environment use, transaction cost, seller liability and declaration acts and milk processing across the local government areas was highly recommended.

Keywords— Agricultural information, use, livestock farmers, animal production.

INTRODUCTION

According to Bamaïyi (2012) generally, agricultural information utilisation is a resources that has an impact on the capacity of livestock production system. Livestock information utilisation is of potential importance not only to the farm business but also to animal welfare and public health. Understanding how to make best use of livestock information by livestock farmers is very important. Furthermore, understanding how farm and farmer demographic characteristics influence use of various techniques may provide insights into the client base for livestock sustainability.

The significance and potentials of agricultural information were well known to all who need or use it. Livestock farmers operate as social networks and they utilise various type of information, exchange ideas to improve production and minimize loss. The acquisition of agricultural information and its consequent

use has become a responsibility to the livestock farmers, this was so as a result of massive production of agricultural literatures available and the increase needs of the information from the clients.

Agricultural Information has been identified to be important and desirable variable in the improvement of livestock production. This makes it imperative for governments and other relevant agencies to provide adequate, relevant and up-to-date information in order to transform livestock production in developing countries (NAPRI, 2014). Information is an essential knowledge in the practice of livestock farming and agricultural extension services delivery. Adereti (2014) defines agricultural information as knowledge that has been put into a meaningful and useful context which is communicated to the generality of farmers who use it to improve their productivity. Livestock farmers need information to make informed decision with regards to their livestock health, productivity, growth and development. Livestock farmers should therefore consciously engage in information search in order to access appropriate and relevant information needed to utilise for sustainable livestock production.

STATEMENT OF THE PROBLEM

The role of livestock farmers in animal production is immeasurable and their motivation to participate for sustainable animal production is first to contribute to household, food security and income (Adebo and Ewuola, 2016). As reported in Food and Agricultural Organization (FAO) (2011), that Nigerian livestock accounts for nearly 5 to 6.5% of the Agricultural Gross Domestic Product by (NAPRI, 2014). The ability of the livestock farmers to attain full productive potential is influenced by the level of their readiness to utilization of the agricultural information available.

Government at all levels made several efforts in boosting livestock production through the establishment of Universities and Research Institutes in Nigeria. The Universities and Research Institutes strive to determine the information needs of the livestock farmers, conduct researches and the findings are disseminated to the livestock farmers to utilise them for improved productivity. In spite of this laudable investment by Governments and NGOs, the livestock sector in Nigeria keep experiencing steady decline in productivity (Henri, 2012). Perhaps, information as output of the researches are not properly disseminated or use by the livestock farmers.

It is against this background; this study investigated the information use towards anchoring livestock production sustainability in Daura, Dandume and Jibia local government areas in Katsina State.

RESEARCH QUESTION

The following research question guided the study: -

- What type of agricultural information the livestock farmers prefer to use for sustainable production?
- Do the livestock farmers get information from the output of researches?
- Is the information properly utilized?

OBJECTIVE OF THE STUDY

The following is the objectives of the study: -

- To identify the type of agricultural information the livestock farmers prefer to utilise for sustainable animal production.
- To examine if the livestock farmers get information from the output of research.
- To examine the level of which the information is use by the livestock farmers.

LITERATURE REVIEW

Livestock farmers use agricultural information from whatever source it came from if it was reliable and useful. Aina, (2006) posited that, the livestock farmer utilised agricultural information that came from whatever source either published or unpublished on all aspects of livestock farming. The use of agricultural information by the livestock farmer is influenced to a greater extent by the nature of the problem and decisions which to be made. It becomes obvious that successful and smooth running of livestock production depend on the proper utilisation of information obtained. Aiyepoku (2005) reported that "effective use of information was a vital component of effective decision making and helps livestock farmers to use adequate, accurate and relevant information. The available agricultural information use by livestock farmers has also received attention in literature because it justifies among other factors, efforts by research and related organizations to improve livestock farmers' activities and output. Lambas (2013) posited that utilisation of agricultural information by livestock farmers can bring about positive changes in animal production in term of profits and cost of labour". This assertion is owing to the fact that all the necessary information that has to do with boosting animal production, maximizing profit, reducing production cost and avoiding great losses of animal production after marketing them, are uncovered to various agricultural information utilisation efforts by the livestock farmers. Utilisation of agricultural information keeps livestock farmers informed and in track to the easiest, latest and better ways of applying farm practices". Ekumankama (2012) assert that" The use of agricultural information by livestock farmers do not sufficiently reflect in their animal production due to some factors like level of education, language barrier and economic status". In line with Ekumankama's view, Okpara (2012) stated that" technical advice provided by extension workers has not been useful because of the high degree of illiteracy among them". He pointed out that this high level of illiteracy is responsible for their inability or unwillingness to learn new livestock farming techniques and use innovations. Todd (1996) notes that the study of information use as an "act" or "doing" has focused particularly on two dimensions, vis a vis, action, a behavioural "doing", and thinking, a cognitive "doing". Underpinning this focus is the assumption that information has the potential to influence, to make a difference to the thinking, actions and passions of people.

METHODOLOGY

The study is quantitative in nature. Cohen (2008) see's quantitative research as social research that avail empirical methods and empirical statements. It is also a systematic investigation of phenomena by



gathering quantifiable data and performing statistical, mathematical, or computational technique and explaining what it reflect. Survey research design was used for the study. The population of the study is registered livestock farmers rearing only cattles from Daura, Dandume and Jibia local government areas respectively in Katsina State. Therefore, a total of six hundred (600) livestock farmers are found to be the target population for the study. To select the sample size, cluster sampling technique was used. Because the population are separate into groups, then a simple random of clusters is selected from the population. On the basis of this therefore, a total of six (6) clubs/associations and seventy-five (75) livestock farmers were selected as sample for the study. This represents 30% each of the entire population. Questionnaire was used as instrument to collect data collection in the study. From the total 75 copies of the questionnaire administered, 70 representing (93.4%) copies were returned duly completed and found useful for the study.

DATA ANALYSIS

The data collected from the respondents were coded and analysed using microsoft excel package with frequency distribution tables and percentages. Rating scales was used to determine the mean score as well to provide a basis for ranking the relative relevance of the variables. Bichi (2011) is of the opinion that, measurement of central tendency serves two purposes. (1) They provide shorthand descriptive of a mass of quantitative data obtained from the sample. (2) It is meaningful and economical. According to Kerlinger (2013) the main purpose of the use of percentages as a method for data analysis is to reduce the different set of numbers to a common base. Also, a benchmark of 50% and above response scores was adopted to facilitate analysis, interpretation and discussion of findings.

FINDINGS AND DISCUSSIONS

To analyze the data collected, frequency tables and percentages were used as per presented below: -

Types of Agricultural Information prefer to Use by Livestock Farmers for Sustainable Production

This section tried to identify the types of agricultural information livestock farmers use in the local government areas studied. In order to achieve this, a list of agricultural information was outlined for the respondents to tick as many as they use for sustainable livestock production. Their responses are reflected below.

Type of Agricultural Information prefer to Use by livestock farmers in LGAs studied in Katsina State.

S/N	Types of Agricultural Information Utilised	LGAs Studied						Total	
		Dandume		Daura		Jibia		Total	
		Freq.	%	Freq.	%	Freq.	%		
1	Breeding techniques	22	91.7	19	82.6	21	91.3	62	88.5
2	New breed varieties	23	95.8	20	87.0	19	82.6	62	88.5
3	Climate	2	8.3	4	17.4	3	13.0	9	12.8

4	Weather	3	12.5	0	0.0	4	17.4	7	10.0
5	Access to market	15	21.5	21	91.0	21	91.0	57	81.5
6	Credit/Loan facilities	23	95.8	18	78.3	21	91.0	62	88.5
7	Cost of inputs and its quality	2	8.3	3	13.1	0	0.0	5	7.2
8	Price of antibiotics	4	16.7	5	21.7	8	34.7	17	24.3
9	Transaction cost	12	50.0	4	17.4	1	4.3	17	24.3
10	Land tenure	2	8.3	7	30.5	1	4.3	10	14.3
11	Environment use	0	0.0	1	4.3	0	0.0	1	1.5
12	Animal welfare code of practice	0	0.0	0	0.0	6	26.1	6	8.5
13	Livestock disease control	22	91.7	19	82.6	19	82.6	60	85.7
14	Seller liability and declaration acts	2	8.3	0	0.0	2	8.7	4	5.7
15	Milk Processing	21	91.7	20	87.0	19	82.6	60	85.7

The above showed the responses of the livestock farmers in the Local Government Areas in Katsina State on the type of agricultural information they utilised for sustainable animal production. From the above analysis, it was discovered that breeding techniques, new breed varieties, access to market, credit/loan facilities, livestock disease control and milk processing were the agricultural information utilised by the livestock farmers with the highest frequencies of over 80% response scores for sustainable animal production respectively. Whereas, climate, weather, cost of inputs and its qualities, price of antibiotics, transaction cost, land tenure, environment use, animal welfare code of practice and seller liability and declaration acts were the agricultural information utilised by the livestock farmers with least frequencies scores of between 1-24% response scores respectively for sustainable animal production.

These findings concur with the study of Munyua, (2000) who found out that, the least expensive input for improved livestock productivity is adequate use of information on new breed varieties and livestock disease control, early warning systems e.g Trypanosomiasis and Foot and Mouth Diseases which are threat to livestock that proper and timely use of information on livestock disease control can minimize the risk of sickness or even death of the livestock. He also pointed out that with improved breeding techniques, the ruminant animal can produce milk that is better for peoples' consumption. From the above findings, it can be concluded that the information on breeding techniques, new breed varieties, access to market, access to loan/credit facilities, price of antibiotics, livestock disease control, and milk processing are the major agricultural information utilised for sustainable livestock production by the livestock farmers in the area studied. It is surprising to note that the livestock farmers do not use information on climate, weather, cost of inputs and quality, transaction cost, land tenure, environment use, animal welfare code of practice

and seller liability and declaration acts. This indicates that some of the livestock farmers don't know the value attached to such information.

CONCLUSION

Based on the findings of the study, it could be concluded that the livestock farmers in the local government areas studied indicated breeding techniques, new breed varieties, access to credit/loan facilities, access to market, and livestock disease control as the major agricultural information which they prefer to use.

REFERENCES

- [1] Adereti F.O. (2004) Information Utilization on Fish Production Techniques by Farmers in Oluyole Local Government area of Oyo State, Nigeria. *European J. Soc. Sci.*, 3(1): 1-7
- [2] Adebo G.M and Ewuola, S.O (2006) Effect of Training on Improved Farm Practices by Farmers in Ondo State, Nigeria. *Journal of Agricultural Extension*, 9, pp. 43-49.
- [3] Aina, L.O (2006) Sources of Information used by Agricultural extension workers in Ibadan, Nigeria. *Library waves*, Vol. I.N.O.L, Lagos, p. 12 National Library.
- [4] Aiyepoku, W.A (2008) The Perception and Utilisation of Information by Livestock Farmers in Nigeria, p.19 Lagos National Library.
- [5] Bamaiyi, P.H. (2012) The Utilization of ICT in the dissemination of Agricultural Information, *Procedia social and Behavior science* 9 Pp685-691,
- [6] Cohen, S. (1980) "Footprints in the Sand: A Further Report on criminology and the sociology of deviance in Britain" In: Fitzgerald, M., McLennan, G. & Pawson, J. (eds) *Crime and Society: Readings in History and Theory*, London: Routledge and Kegan Paul pg.240
- [7] Ekumankama, D.U (2012) Farmers information needs in rural Manipur: An assessment. *Annals of Library & Information Studies*, 56, (1) 35-40
- [8] FAO.(2011). Trypanotolerant cattle and livestock development in West and Central Africa. *FAO animal production health paper* 67/1 vol.11, p 213 - 230
- [9] Lambas, M. (2003) Farmers in the space-age. *Dhaka Journal of Agriculture*.21 (2) 17-81.
- [10] Henri, M. (2012) A common pesticide decreases foraging success and survival in honey bees. *Science* 336, 348-350
- [11] Munyua, H. (2000) *Information and Communication Technologies for Rural Development and Food Security: lessons from field experiences in developing countries*. Sustainable Development Department, Food and Agriculture Organization of United Nation
- [12] NAPRI, (2014) Research on Poultry to enhance Production. The basics in animal production, *Journal of Tropical Agriculture*, 11(2) 2
- [13] Okpara, D. A (2002) The response of soya bean to nitrogen and potassium.