

INFLUENCE OF INFORMATION SOURCES ON FARMERS KNOWLEDGE OF POULTRY DRUGS IN DELTA STATE, NIGERIA: IMPLICATION FOR RURAL COMMUNITY DEVELOPMENT

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ABSTRACT

The study examined the influence of information source on farmers' knowledge of poultry drugs in Delta State, Nigeria: Implication for rural community development. The study objectives were to ascertain the institutional characteristics of respondents, their access to information sources, awareness/knowledge of poultry drugs, and to ascertain if there is significant relationship between institutional characteristics of poultry farmers and their access to source of information on poultry drugs in the study area. A 3-stage sampling procedure was used to select respondents. The primary data used in this study were obtained from field surveyed through the use of structured questionnaire administered to 100 respondents. Data were analyzed using frequency counts, percentages, means and standard deviation and Chi-square. Higher number (67%) of the respondents have never been leader of groups, 62% of them had contact with extension agents and are members of associations respectively. Result showed that respondents have less access to information on poultry drugs usage as respondents have access only to neighbour ($M=2.58$) source out of the 18 sources of poultry drugs information identified in the study. Respondents are aware and have access to the use of avian charge (60%), happy hen treat (48.8%), petamine (45.0%), and tricero (32.5%) than other poultry farmers. Chi-Square results showed that all the information sources identified except campaign (0.762), exhibition (0.528), and workshop/seminar (2.607) at 1% level were significant. The study recommends that poultry drugs usage should be encouraged among farmers.

Keywords: Information source, knowledge, poultry drugs, Delta State, community development

INTRODUCTION

Poultry farms are primarily establish for eggs and meat production and for generating revenue from its products; it is a fulltime occupation of numbers of Nigerians (Umeh and Odo, 2002 cited in Lawal, Torimiro and Makanjuola, 2009). It is an important livestock agricultural subsector with several benefits and investment opportunities. The successes recorded in this important subsector could not have been possible without poultry farmers' access to relevant information which is a *sin-qua-non* for human, societal, and for every form of business development. Nigerian protein intakes stand at 3.5g per caput per day (Ironkwe and Amefule, 2008). This is far less than the 35g per caput per day recommended by the World Health Organization (W.H.O). The shortage of animal protein consumption is partly due to the high cost of conventional meat sources like cattle, goat, and sheep (FAO, 1994 cited in Waziri, Chidebelu and Nweze, 2011). It is therefore necessary to search for a cheaper alternative source of meat to meet the ever-increasing demand for animal protein. Though Nigeria poultry is less capitalised because it is mainly smallholding, if adequate attention and concern is invested by stakeholders in the vanguard of poultry development, this industry will further boost Nigerians protein intake requirement and help to absorb a large number of unemployed youths across the country searching for unavailable 'white collar jobs'.

Poultry industry in Nigeria is bedevilled by enormous problems, such as unavailability to poultry drugs and vaccines are problems in Nigeria poultry enterprise (Lawal, Torimiro and Makanjuola, 2009). Similar observation was made by Oyeyinka, Raheem, Ayanda and Abiona (2012) that diseases/pests, poor access to poultry drugs and increasing cost of medications/drugs are some of the problems of poultry agricultural subsector. This is an indication that farmer access to relevant information enables them advance beyond the subsistence level of production. There is need for a steady flow of accurate, understandable, and factual links between the farmers and the various information sources. Information about improved agricultural practices passed to farmers when adopted by them is likely to lead to increase outputs and overall farmer and rural development. It is the primary responsibility of extension service agents to search for and disseminate relevant farm-related information to farmers. Information effectively disseminated to farmers help them meet farming emergencies, giving farmers timely warning about diseases outbreak and changing conditions. Farmers are therefore likely to resort to sourcing relevant information from different sources to boost their outputs especially in the poultry agricultural subsector. The problem of lack of or minimal use of drugs observed in poultry production could be linked to information technologies and information sources affecting competitiveness as noted by Porter and Miller (1985). Therefore, of what importance are poultry medication information sources to poultry production? The study specific objectives are to (1) ascertain institutional characteristics of poultry farmers', their access to information sources, and awareness/knowledge of poultry drugs. The hypothesis tested states that there is no significant relationship between institutional characteristics of poultry farmers and access to information sources for poultry drugs.

METHODOLOGY

Delta State was created on 27th August 1991, carved out of former Bendel State. The capital of Delta state is at Asaba, in the Niger Delta region of the south-south geopolitical zone of Nigeria. It shares common boundaries with Edo and Ondo states to the North-West, Imo and Anambra to the North-East. Rivers and Bayelsa States to the South-East, while in the South-West and South it has approximately 122 kilometer, bounded by the Bight of Benin on the Atlantic Ocean. It has tropical climate marked by two major seasons, the wet and the dry seasons, the wet season last from April to November and the dry season last from December to March with ranging temperature of 25-28°C and 28-34°C for the two seasons with an average of 27°C and 32°C respectively. The vegetation of Delta State varies from the mangrove swamps along the coast to evergreen forest and savannah in the North. The State is generally lowly with remarkable hills, wide coastal belt inter-laced with rivulets and streams, which form part of the Niger-Delta.

The total land area of Delta state is estimated at 17,698km². It lies roughly between longitude 64°E and 7.5°E of the Greenwich meridian and latitude 5.6°N of the equator. Delta State has 25 Local Government Areas, divided into 3 agricultural zones: Delta North, and Delta Central; with 29 constituencies and 149 clans or communities (NPC, 2006). Delta North is made up of 9 local government areas that constitutes Aniocha North, Aniocha South, Ika North East, Ika South, Ndokwa East, Ndokwa West, Oshimili North, Oshimili South, Ukwuani and it constitute 29.9% of the population, while Delta central constitute 8 local government area and it is made up of Ethiope East, Ethiope West, Okpe, Sapele, Udu, Ughelli North, Ughelli South, Uvwie and the population in these agricultural zones is made up of 38.45% of the entire population. Delta south is made up of 31.54% which includes 8 local government area and they include Bomadi, Burutu, Isoko North, Isoko South, Warri North, Warri South, Warri South East, Patani.

Agriculture is the predominant occupation of the people in the state such as farming, fishing and hunting. The state is endowed with the following cash crops oil palm, rubber, and timber. Apart from these resources, the state is endowed in other areas of agriculture such as fishing, poultry and piggery production among others (Osunade, 1994). This study is limited to influence of information sources on poultry farmers' knowledge of poultry drugs in Delta State. The population of the study were all poultry farmers in Delta state.

Sampling technique

A 3-stage sampling procedure was used to select respondents. First, three (3) local government areas, Oshimili North, Sapele, Warri South, were selected through simple random selection from the 3 agro-ecological zones in Delta state. Second, two (2) communities each were randomly selected from each of the 3 local government areas previously randomly selected. The communities were Ibusa and Okpanam in Oshimili North, Amukpe and Elume in Sapele, Igbudu and Ogonu in Warri South. Third, twenty (20) respondents were randomly to have a total of 100 respondents.

Primary data for the study was gathered through the use of a structured questionnaire complemented through scheduled interviews with the respondents. Use of poultry drugs was measured by asking respondents to indicate yes or no. knowledge level about poultry drugs was measured by asking respondents to indicate yes or no to relevant question items. Access to information source was measured using a 3-point scale of always, sometimes and never. A mean score of 2.0 ($3+2+1=6/3=2$) and above was taken that respondents had access to particular information source.

Data analysis, data was analysed using both descriptive and inferential statistics such as means, frequency counts, percentages and Chi-Square

RESULTS AND DISCUSSION

Institutional characteristics of the poultry farmers

Results in Table 1 showed that majority (77.5%) of the poultry farmers do not have contact with extension agents. This is an indication that there is lack of opportunity for transfer of modern farming skills, knowledge and information on poultry production which will have negative effects on the facilitation of adoption of new ideas, knowledge and principles in poultry production. Furthermore, the table shows that the frequency of contact with respondents by the extension agents was not frequent with yearly intervals (44.4%). This result showed that extension agents are effective in disseminating extension information and research findings to the poultry farmers in the study area.

Furthermore, majority (77.5%) of the poultry farmers are not members of any association. An indication that there will be no dialogue of new technologies of poultry issues including drugs which are common among members of association leading to improved production. Similarly on social groups which the poultry farmers in the study areas belonged to, half (40.0%) of the poultry farmers belong to monthly contributions; this was followed by "no social group" (35.0%), weekly contribution (12.5%), cooperative society and poultry farmers association (6.3%) respectively. These further signifies that more training sessions on poultry and drugs usage would be necessary for poultry farmers in the study area to enable them improve production and assist themselves with necessary farm inputs and information. Higher proportion (83.8%) of poultry farmers had no form of leadership experiences.

Table 1: Institutional characteristics of the respondents

Institutional characteristics		Freq.	percentage
Contact with extension agents	Yes	18	22.5
	No	62	77.5
Frequency of contact with extension agents	Fortnightly	5	27.8
	3 Months interval	5	27.8
	Yearly	8	44.4
Membership of Association	Yes	18	22.5
	No	62	77.5
Social Goups Categorization;	Poultry Farmers Association	5	6.3
	Cooperative Society	5	6.3
	Weekly contribution	10	12.5
	Monthly contribution	32	40.0
	None of the above	28	35.0
Group Leadership	No form of leadership exp.	67	83.8
	Have led a group	13	16.3

Source: Field Survey data, 2016

Respondents’ access to information sources on poultry drugs usage

Table 2 shows respondents’ access to information about poultry drug usage. It is obvious from the Table that poultry farmers frequently access needed information in nearly all the areas of poultry drug usage from their neighbours (M=2.59). The reasons being the urge to improve and increase yields, and to look for existing markets to sell their products. It can be seen that the sources of these information available were radio (M = 1.63), television (M = 1.26), extension agents (M = 1.23), newspaper (M=1.24), farmers’ cooperatives (M = 1.49), manufacturers (M = 1.43), retailers (M = 1.74), Agric. Journals (M = 1.61), bulletins (M = 1.35), posters (M = 1.35), campaigns (M = 1.26), exhibition (M = 1.39), workshop/seminar (M = 1.36), phone calls (M = 1.55), demonstration (M = 1.62), group meeting or discussions (M = 1.66), NGOs (M = 1.76), and Ministry of Agric. (M = 1.52). The implication of these are that farmers source farm information from different sources, and that agricultural information transfer, sourcing and usage thrive better in places where farmers are highly educated to interpret and avail themselves with the benefits accruable from them (FAO, 1993). It was seen that farmers access information from their neighbours. This is a form of observation of practices carried in the farms of their friends and relations.

Table 2: Respondents access to information sources on poultry drug usage

Sources	Access	
	Mean	SD
Radio	1.63	0.49
Television	1.26	0.68
Extension Agencies	1.23	0.42
Newspaper	1.24	0.57
Neighbours	2.58*	0.50
Farmers’ Cooperatives	1.49	0.76
Manufacturers (Labels)	1.43	0.67
Retailers (dealers)	1.74	0.79
Agric Journals	1.61	0.82
Bulletins	1.35	0.48

Posters	1.35	0.48
Campaigns	1.26	0.44
Exhibition	1.39	0.63
Workshop/Seminar	1.36	0.72
Phone calls	1.55	0.79
Demonstration	1.62	0.87
Group meeting/ discussion	1.66	0.83
NGOs	1.76	1.03
Ministry of Agriculture	1.52	0.81

Source: Field Survey data, 2016, Access (Mean) ≥ 2.00

Farmers awareness/knowledge level of poultry drugs (vitamins/supplements and antibiotics) usage

Farmers’ knowledge level of poultry drugs (vitamins/supplements, minerals and antibiotics) usage. Generally, results of analyzed data showed that poultry farmers had a higher awareness level of vitamins/supplements and minerals drugs than antibiotics related in the study areas (Table 3). As regards awareness of functions, dosage and drugs compositions, results showed that poultry farmers were more aware avian charge (60%) than others Poultry farmers were more aware/knowledgeable of avian charge (60.0%), happy hen treat (48.8%), petamine (45.0%) and triceo (32.5%) which were also used frequently and improve health value of poultry birds. This as well facilitates poor poultry farmers’ to have access to drug markets as a catalyst for rural poverty reduction. The knowledge of these drugs reduces marketing distortions, build relationships among various poultry farmers and strengthening farmers’ organization and poultry traders’ association.

Table 3: Farmers awareness/knowledge level of poultry drugs (vitamins/supplements and antibiotics) usage

Vitamin and supplements	Functions of the drug		Dosage		Drug composition	
	Freq.	percentage	Freq.	percentage	Freq.	percentage
GroGel PlusB	23	28.8	15	18.8	15	18.8
Cod Liver Oil	20	25.0	20	25.0	20	25.0
Petamine	36	45.0	36	45.0	36	45.0
Vionate	21	26.3	21	26.3	21	26.3
Avia Charge	48	60.0	48	60.0	48	60.0
Nutri Drench	16	20.0	16	20.0	16	20.0
Happy Hen Treats	39	48.8	39	48.8	39	48.8
Antibiotics :						
Terramycin	20	25.0	20	25.0	20	25.0
Bacitracin Soluble	16	20.0	16	20.0	16	20.0
Pennchlor	18	22.5	18	22.5	18	22.5
Oxytet Soluble	8	10.0	08	10.0	08	10.0
Sulmet	16	20.0	16	20.0	16	20.0

Source: Field Survey data, 2016, *Multiple Response

Hypothesis

Relationship between Respondents Access to Information Sources and their Knowledge of Poultry Drug Usage

The data in Table 4 showed the farmers' knowledge of effects of poultry drugs usage and their access to various sources of information. It can be infer from the table that the null hypothesis was accepted or there was no significant relationship between some respondents' knowledge of the effects of poultry drug usage and their access to various sources of information which includes campaigns, exhibition, and workshop/seminar with their access to various sources of information. On the other hand, the results indicated that respondents' knowledge of drugs mentioned were not discriminating elements that would affect their access to various sources of information on the use of poultry drugs. Those knowledge that were significantly related with the farmers' access to various sources of information were radio, television, extension agencies, newspaper, neighbours, farmers cooperatives, manufacturers (labels), retailers (dealers), agriculture journals, bulletins, posters, phone calls, demonstration, group meetings, NGOs and ministry of agriculture.

Table 4: Relationship between Respondents Access to Information Sources and their Knowledge of Poultry Drug Usage

Info. Sources	Pearson Value	Df	Chi-Square	Asymp. sided)	Sig. (2-
Radio	36.906	2	3.78	<0.001	
Television	84.804	2	3.78	<0.001	
Extension Agencies	8.247	2	3.78	<0.016	
Newspaper	44.111	2	3.78	<0.001	
Neighbours	25.673	2	3.78	<0.001	
Farmers' Cooperatives	12.770	2	3.78	<0.002	
Manufacturers	39.897	2	3.78	<0.001	
(T abale) Retailers (dealers)	16.883	2	3.78	<0.001	
Agric Journals	9.230	2	3.78	<0.010	
Bulletins	15.095	2	3.78	<0.001	
Posters	10.645	2	3.78	<0.005	
Campaigns	0.543*	2	3.78	<0.762	
Exhibition	1.278*	2	3.78	<0.528	
Workshop/Seminar	2.607*	2	3.78	<0.272	
Phone calls	25.643	2	3.78	<0.001	
Demonstration	30.362	2	3.78	<0.001	
Group meeting/ disc	1.381	2	3.78	<0.501	
Non-Gov. Org	43.436	2	3.78	<0.001	
Min. of Agriculture	19.727	2	3.78	<0.001	

Source: Field Survey Data, 2016 * No Significant Relationship at 5%

Implications for rural (community) development

Poultry is one of the many sources of animal protein in the Niger-Delta area of Nigeria to which surveyed state belong. Though poultry (local and improved types) are commonly reared in Niger-Delta States, but poultry diseases are major problem in the area. If poultry information sources are properly harnessed could be of tremendous benefits directly and indirectly to rural poultry farmers and their community development especially as this study has shown that poultry farmers had contact with extension agents though not frequent. Based on the findings of this study, if intensive campaign, workshops/seminars and exhibitions are organized for poultry farmers in urban and rural areas in the State, it would boost nutritional and income base of these farmers thereby improving their household standard of living.

CONCLUSION AND RECOMMENDATIONS

The farmers had low level of knowledge about poultry drugs usage in the State. This fact was confirmed from the respondents' level of awareness which was also low. It was further seen during the adoption of this drug usage which they were not so knowledgeable about, their adoption level was low, this was due to the constraint faced in adopting these drug usage, problems in sourcing these information and the constraints faced as poultry producers.

The study recommends that:

1. Poultry drug usage should be encouraged among poultry farmers since it has several benefits. Therefore government should make better pricing policies to encourage frequent livestock drug usage.
2. Training should be given to extension agents on how to use other forms of information sources during dissemination.
3. The extension agent should further explain better on the adoption of the new technologies through the use of other forms of teachings like the demonstration method, training and visit systems to encourage the farmers to adopt them.
4. Formatting and packaging of agricultural information should be done to suit the end users (poultry farmers) in the geographical areas and this information sources should be consistent and continuous in their delivery and dissemination to the stakeholders.

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