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Assessment of Veterinary Extension Services Rendered to Poultry Farmers by the Agricultural Development Project, Kwara State, Nigeria

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Abstract

The study assessed the veterinary extension services rendered by the Kwara State Agricultural Development Project (KWADP) to poultry farmers in Kwara State, Nigeria. A two stage sampling procedure produced the sample size of 110 from five villages in the study area. A well structured interview schedule was administered to the respondents to produce data which was analyzed using both descriptive and inferential statistical tools. The study revealed that majority of the poultry farmers in the study area were male (73.3%), aged between 31 and 50 (70.9%) and had over 10 years experience in poultry farming (74.5%). Only 17.3% of the farmers had secondary school education. Almost all the respondents (97.35%) were aware of the veterinary services of the (KWADP). The frequency of extension contact was monthly for 59.1% of the respondents. The t-test at 1% level of significance revealed significant differences in the means of meat yield and egg yield before and after extension contact. The study concluded that though there was strong level of awareness of the veterinary services of the KWADP and there was evidence of positive impact of the extension contact on productivity, the extension service was not meeting the needs of the farmers in some aspects of poultry production such as facilitating credit facilities for expansion. The study recommended that the frequency of extension contact be improved upon. Lastly, the study suggested that farmers should be encouraged to form or join cooperative societies to brighten their chances of securing rural credit.

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Introduction

Livestock as a sub-sector of agriculture contributes significantly to the health and economy of rural communities and the nation as a whole. A large percentage of the rural people in Nigeria satisfy their subsistence needs through livestock production involving rearing and marketing of livestock and its products (Oladele 2004). While livestock includes cattle, goat, sheep, pigs and poultry, reports by RIM (1992) revealed that poultry accounts for about 60% of the livestock production in Nigeria. The enormous potential of poultry production to

bring about rapid economic growth earned it a pivotal position among all livestock – based vocations (Olagunju 2010). Isika et al (2006) observed that poultry is important in addressing animal protein shortage in human nutrition because of its high fecundity, fast growth rate, short generation interval and unparalleled competence in nutrient transformation to high quality animal protein.

In spite of the fact that about 10% of the Nigerian population are engaged in poultry production (Okonkwo and Akubuo 2001), the industry has continued to fall short of its aim of

self-sufficiency in animal protein consumption in the country which is put at 5gm/caput per day and which is a far cry from F.A.O recommended level of 35gm /caput per day. Evidence had shown that the critical issue in poultry production in Nigeria is the low production and inefficiency in resource allocation and utilization hence the need to provide farmers with useful information that will assist and sustain poultry industry in Nigeria (Ezeh et al. 2012) The abysmal report on the performance of the poultry industry in relation to the needs and expectation expressed calls to question the efficiency of extension services rendered to poultry farmers. Emaikwu et al. (2011) reported that poultry production in Nigeria is constrained by seasonal and irregular demand, high feed and chick cost, inadequate capital and poor extension services.

The role that agricultural extension can play in enhancing overall productivity and livelihood of poultry farmers cannot be overemphasized. Oladele (2004) confirmed from a study of southwestern Nigeria that while 91% of respondents confirmed that extension enhanced their management of diseases, 80% confirmed same for treatment of livestock. Agricultural extension in Kwara State as in other parts of the country is administered by the Agricultural Development Project (ADP) under the supervision of the State Ministry of Agriculture. The Kwara State Agricultural Development Project (KWADP) maintains veterinary extension units that functions as outreach clinics for the purpose of providing advisory services to livestock farmers in the State. The level of awareness of extension services and the frequency of extension contact among other factors are important to the adoption and efficiency of extension service delivery. Farmers' understanding of the role of extension service providers and their perception of the benefits derived from participation in extension programs is important for the success of extension efforts. The suggestion of the poultry farmers (being the end users) on strategies to improve veterinary extension service delivery in the State will provide useful information for future decision making. Therefore, the study carried out an assessment of the veterinary extension services provided by the KWADP. Specific objectives of the study were to:

- describe the socio-economic characteristics of poultry farmers in Kwara State;
- investigate the level of awareness and contact of the poultry farmers with the KWADP veterinary extension services; and
- examine farmers perception of the veterinary extension services rendered by the KWADP

Hypotheses for the Study

Ho1: There is no significant difference between farmers' yield in egg production before and after their contact with veterinary extension services.

Ho2: There is no significant difference between farmers yield in meat production before and after their contact with veterinary extension services.

Materials and Methods

Study Area

The study area is Kwara State, Nigeria. With a total of sixteen Local Government Areas, the state has a land area of about 32,500 KM² and a population of about 1.5M comprising of Yoruba, Nupe, Fulani and Baruba as the major tribes. The state is located between latitudes 7⁰45'N and 9⁰30'N and longitude 2⁰30'E & 6⁰25'E. The topography is mainly plain to slightly gentle rolling lands. The mean annual rainfall ranges between 1000mm and 1500mm. Average temperature ranges between 30⁰C and 35⁰C. It also has an estimated figure of 203,833 farm families with the majority living in the rural areas.

Sampling Procedure and Sample Size

The study cantered on zone C of the KWADP which was identified as the dominant zone in livestock farming of the four agro-ecological zones that make up the state. Zone C comprises of five Local Government Areas namely; Moro, Asa, Ilorin East, Ilorin West and Ilorin South

A two-stage random sampling technique was then employed to obtain a sample of poultry farmers using the sampling frames provided by the KWADP. The first stage was the random selection of a village each from the five selected

Local Government Areas using the ADP village listing, the following villages Shao, Alapa, Magaji Ajomu, Oke-Oyi and Egbejila were picked. The second stage was the random selection of twenty two respondents from each of the five villages using the ADP Poultry farmers' listing to give a total sample size of 110.

Data Collection and Analytical Tools

Data was collected through the use of an interview schedule. Descriptive statistics involving the use of frequencies, percentages, means were used in analyzing the socio-economic characteristics of the respondents and also in presenting their level of extension awareness and contact. Farmers' perception of the extension services rendered by the KWADP was measured by means of a 4 point likert-type scale designated as follows;

Not adequate – 1, indifferent -2, fairly adequate- 3 and very adequate – 4.

The t – test was employed in testing the hypothesis of the study.

Results and Discussion

Socio-economic Characteristics of Respondents

Table 1 reveals that 70.9% of the respondents are aged between 31 and 50 years. This is significant as this age bracket represents the most active and productive years of most individuals because on the average people possess the most physical strength at this period of life. It is particularly of interest because of the tedious and physical nature of poultry farming. Majority of the respondents are male (77.3%) and married (90%). The level of education among the poultry farmers is generally low with 30.9% of the farmers having no formal education and a further 51.9% possessing only primary school education. Majority of the farmers (74.5%) have above 10years experience in poultry farming. The large percentage of experienced poultry farmers should impact positively on the quality of information supplied for this study.

Table 1: Socio- Economic Characteristics of Respondents N=110

Socio-Economic Variables	Frequency	Percentage
Age (years)		
<30	7	6.4
31-50	78	70.9
>50	25	22.7
Gender		
Male	85	77.3
Female	25	22.7
Marital Status		
Single	8	7.3
Married	99	90.0
Widowed	3	2.7
Highest Educational Level		
No formal Education	34	30.9
Primary Education	57	51.9
Secondary Education	10	9.1
Tertiary Education	9	8.2
Poultry Farming Experience(years)		
≤ 10	28	25.5
> 10	82	74.5

Source: field survey 2011

Level of Awareness and Contact of Respondents with Veterinary Extension Agents of the KWADP

The level of awareness of veterinary extension services rendered by the KWADP and the level of extension contact is captured in Table 2. Almost all the respondents (97.3%) are aware of the veterinary extension services of the

KWADP. This agrees with the findings of Oladele (2004) which confirmed. 82% level of awareness about the veterinary extension services of the ADP among livestock farmers in south-western Nigeria similar study carried out

in The fact that majority of the respondents first got wind of the existence of the KWADP veterinary services through the radio shows that the radio is a veritable means of communication

among the respondents and this should be explored for the dissemination of agricultural and other extension information. The fact that over 91% of the respondents have had over 12 months of extension contact is favourable to the study as there must have been a minimum of two production cycles within this period and hence some benefits of the extension contacts would have been observed by the respondents.

Table 2: Level of Awareness and Contact of Respondents with Veterinary Extension Agents of the KWADP

Variable	Frequency	Percentage
Awareness of KWADP Veterinary Extension Services		
Aware	107	97.3
Not Aware	3	2.7
Source(s) of information on KWADP Veterinary Extension Services		
Veterinary Extension Agents	15	13.6
Radio	59	53.6
Friends	13	11.8
Other Poultry Farmers	20	18.2
Others	30	2.7
No of Years Since Veterinary Extension Service Contact		
<1	9	8.4
≥1	98	91.6
Frequency of Veterinary Extension Service Contact		
No Contact	7	6.4
Weekly	23	20.9
Fortnightly	3	2.7
Monthly	65	59.1
Occasionally	12	10.9

Source: field survey 2011

About 60% of the respondents can boast of only one veterinary extension contact in a month. This is grossly inadequate and may have impli-

cations for the effectiveness of veterinary extension efforts among the respondents.

Farmers' Perception of Veterinary Extension Services Rendered by the KWADP

Table 3: Respondents' Perception of Veterinary Extension Services Rendered by the KWADP

Perception of Respondents on Various Veterinary Extension Services	Frequency	Percentage
Training and Demonstration		
Not adequate	11	10.0

Indifferent	18	16.4
Fairly adequate	35	31.8
Very adequate	46	41.8
Improved methods of poultry farming		
Not adequate	5	4.6
Indifferent	24	21.8
Fairly adequate	27	24.5
Very adequate	54	49.1
Improved breeds of poultry		
Not adequate	2	1.8
Indifferent	64	58.2
Fairly adequate	34	30.9
Very adequate	10	9.1
Access to credit facilities		
Not adequate	29	26.4
Indifferent	56	50.9
Fairly adequate	15	13.6
Very adequate	10	9.1
Poultry diseases, prevention & cure		
Not adequate	17	15.5
Indifferent	31	28.2
Fairly adequate	41	37.3
Very adequate	21	19.1

Source: field survey 2011

Table 3 shows that majority of the farmers believe that the veterinary unit of KWADP at least has made an impact on their poultry activities in the areas of improved methods of poultry production, training and demonstration. This is because 73.6% of the farmers judged the effort of the unit as being at the least fairly adequate in meeting their extension needs. However, the reverse is the case with the introduction of improved breeds of poultry in which case about 60% of the farmers were either indifferent or considered the extension effort in this regards as being inadequate. Only 9.1% of the farmers agreed that the unit was adequate in facilitating their access to credit

facilities. The poor performance of extension in the area of facilitating rural credit has been criticized by authors as one of the bane of the desired transformation in agriculture. Oboth (2003) confirmed that an increase in the level of finance of the poultry industry is necessary for the sub sector to meet the protein requirement of the population. About half of the farmers (56%) have felt the impact of the veterinary extension services in the prevention and cure of poultry diseases.

Farmers Suggestions on How to Improve Extension Service Delivery in Kwara State

Table 4: Respondents' Suggestion on How to Improve Extension Service Delivery

Strategies	Frequency	Percentage
An upward review of Extension workers' salaries	58	52.7
Provision of infrastructural facilities	73	66.4
Provision of transport facilities for extension agents	83	75.4
Solution to the dearth of credit facilities required to expand and adopt new methods of poultry farming	50	45.5

Source: field survey 2011

The farmers were most passionate about the provision of transportation facilities for the extension agents. Most of the farmers (75.6%) suggested that this will improve the extension service delivery. This may be a pointer to the inadequacy of the current frequency of extensi-

on contact with the farmers. An upward review of extension workers' salaries, provision of infrastructures and solution to dearth of credit facilities were also suggested by the farmers.

Hypothesis Testing

Table 5: Test of Means of Yield Before and After contact with Veterinary Extension Agents

	Paired Difference		Standard Error of mean	t-Value	Level of significance
	Mean	Standard deviation			
Pair 1 Meat yield before and after contact with veterinary Extension agents	1.987	0.904	0.12	19.405	0.000
Pair 2 Egg Yield before and after contact with veterinary Extension agents	2.169	1.054	0.131	16.588	0.000

The result of the t- test carried out revealed that the difference in the means of meat yield before and after extension contact was significant at 1% with a t- value of 19.405 thus the null hypothesis that there is no significant difference in meat before and after extension contact is rejected. A significant difference was also established in egg yield before and after extension contact at 1%, with a t-value of 16.588.

Conclusion

The study concluded that there exists a strong awareness of the veterinary extension services of the KWADP among poultry farmers in the state. It was however established that the frequency of extension contact was inadequate and that the extension needs of the farmers were not being adequately met. The study also concluded the activities of the veterinary unit of the KWADP have positively impacted on the yield of the farmers.

Recommendations

The study makes the following recommendations from its findings;

1. The KWADP should take advantage of the radio in disseminating agricultural information to farmers
2. The frequency of extension contact should be increased. The provision of means of transportation could assist in achieving this.
3. Poultry farmers should be encouraged to form cooperative societies while existing ones should be strengthened to facilitate access to credit.

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