ANALYSIS OF TRAINING NEEDS BY LIVESTOCK FARMERS IN BENUE STATE, NIGERIA

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ABSTRACT

Livestock farming is an important part of the Nigerian agricultural sector. The demand for livestock products in Nigeria is on the rise owing to growing population, changes in income and food preferences. However, despite several efforts by Government and Non-Governmental Organizations to increase efficiency and boost production, the desired result is yet to be achieved, because most of the agricultural and rural development programmes have centered only on increased productivity rather than the training needs of the farmers. In order to increase the efficiency of livestock farmers, training is indispensable. It is against this backdrop that this study examined the training needs of livestock farmers in Benue State, Nigeria. One hundred and fifty respondents were randomly selected from the three agricultural zones of Benue State, Nigeria, using structured questionnaire. Data were analyzed using Likert Scale and logit regression analysis. Findings show that farmers had high interest in educational training programmes that deals with health and diseases ($\bar{x}$ = 3.27), feeds and feeding ($\bar{x}$= 3.23), financial planning ($\bar{x}$=3.10) agricultural credit ($\bar{x}$ = 3.08) and marketing ($\bar{x}$ = 3.01). The training needs of the livestock farmers were significantly influenced by factors such as age, educational level and livestock size. The major problems of livestock production are funds and low access to agricultural credit. To achieve the desired change in the livestock sector, the training needs identified by the farmers must be holistically re-examined as it is the crucial steps towards recognizing the areas of farmer's interest. Consequently, curriculum that best suit the existing real conditions of the farmers should be designed and developed.

Keywords: Training needs, livestock, farmers, agricultural sector.

INTRODUCTION

Agricultural development is an integral part of national development (Daneji, 2011). It is that aspect of development that is related to agrarian reforms. The general goal of agricultural development initiative is total transformation in the quality of life of the people or target beneficiaries of the programme. Successive government in Nigeria have executed several agricultural interventions aimed at improving food and livestock production but have met with partial or no success. The programmes have centered on increased productivity rather than the development of the human resources involved. About 90% of the national livestock herd is under traditional management and breeding. Thus, genetic factor seriously limit livestock productivity in Nigeria. Complete absence of Grand Parent Stock (GPS) affects productivity, especially of the poultry sub-sector. A related problem is the collapse throughout the entire country for the breeding and multiplication programs for livestock. Furthermore, while the breeding programmes were still active, there is little or no recordkeeping as a basis for breed selection. The farmer therefore needs competency in knowledge, skills and techniques involved in the efficient management of his livestock to

maximize production. A significant relationship has been found between training and competencies of target population (Okwoche, 2007). Livestock farmers' competencies could be enhanced through proper training programmes. Training consists largely of well organized opportunities for participants to acquire necessary understanding and skills.

Sajeev and Singha (2010) opined that farmers' training is directed towards improving their job efficiency in farming. Extension education is not just training for knowing more but to behave differently. That is to say, farmers who acquire training have to put it in practical use to bring out the best productivity as compare to the ones who had no training. Trainings are conducted at various levels for which the programmes are designed based on the clientele problems, their needs and interests. (Sajeev and Singha, 2010). Training needs analysis is one of the crucial steps towards identifying the areas of farmers' interest, design and development of curriculum that can best suit to the existing real conditions of the farmers. The expansion of livestock sector is hampered by low levels of knowledge about improved inputs and management practices, which has impeded the growth in productivity in the sector. It is against this back drop that this study analyzed the training needs of livestock farmers in Benue State, Nigeria.

METHODOLOGY

The research was conducted to analyze the training needs of livestock farmers in Benue State. Multi-stage stratified and purposive random sampling was used to select 150 respondents from the three agricultural ecological zones of Benue State Agricultural Development Programme (BNARDA). From each of the three zones, two Local Government Areas were randomly selected and in each, twenty-five (25) respondents were interviewed making a total of 150 respondents. Percentages and frequency distribution was used to analyse constraints to livestock production as perceived by farmers.

Five point Likert rating scale was used to analyse the level of interest in educational programmes dealing with topics in livestock production by farmers. A mean score of 5 was regarded as very high interest level and quality training level of the famers, a mean score of 4 was regarded as high interest level and quality training level of the famers, a mean score of 3 was regarded as moderate interest level and quality training level of the famers, a mean score of 2 was regarded as low interest level and quality training level of the famers and a mean score of 1 was regarded as very low interest level and quality training level of the famers. Furthermore, an arbitrary rating of 2.50 and above was chosen as an acceptable interest level and quality training level of the famers.

Similarly, a five-point Likert rating scale was used to analyse the quality of educational programmes offered in livestock production by farmers. A mean score of 5 was regarded as very high interest level and quality training level of the famers, a mean score of 4 was regarded as high interest level and quality training level of the famers, a mean score of 3 was regarded as moderate interest level and quality training level of the famers, a mean score of 2 was regarded as low interest level and quality training level of the famers and a mean score of 1 was regarded as very low interest level and quality training level of the famers. Furthermore, an arbitrary rating of 2.50 and above was chosen as an acceptable interest level and quality training level of the famers.

In order to determine the effect of socio-economic characteristics on farmers' interest in training, the Binary Logistic Regression model that was used is specified below:

$$\text{LOG } \frac{P}{1-P} = \text{LOG } Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + \beta_8X_8 + \mu$$

where:

LOG $\frac{P}{1-P}$ = Log of the probability (P) of interest in training relative no interest in training

Interest in training = 1; No interest in training = 0

X_1 = Age (in years)
X_2 = Gender (male =1; female = 0)
X_3 = Farm income (in Naira)
X_4 = Level of education (in years)
X_5 = Household size (in numbers)
X_6 = Herd size (in numbers)
X_7 = Farming experience (in years)
X_8 = Number of extension contact
μ = error term

RESULTS AND DISCUSSION

The result in Table 1 shows the result of level of interest in educational programmes dealing with topics in livestock production as rated by farmers. The results revealed that respondents had high level of interest in health and diseases (x =3.27), feeds and feeding (x = 3.23), Financial planning (x = 3.10), agricultural credit (x = 3.08) and agricultural marketing ($\bar{x}$ = 3.01). Farmers had low interest in other areas especially use of computer (x =1.91). The areas in which farmers express high level of interest might be due to the fact that, they have inadequate knowledge leading to low productivity. This agrees with the result of Sajeev et al. (2010), which says farmers have inadequate knowledge about technical aspects of diseases such as etiology, symptoms, diagnosis, prevention and control measures. When farmers are not equipped in technical knowledge and skills then productivity cannot be improved and there will be no downstream income increase, rural employment generation, reduction in food prices, establishment of agro-based industries and economic growth.

Table 1: Level of Interest in Educational Programmes dealing with topics in Livestock Production as rated by Farmers (N=150)

Educational Programme	Mean	Standard Deviation
Health and diseases	3.27	0.78
Feeds and feeding	3.23	0.96
Financial planning	3.10	0.82
Agricultural credit	3.08	0.96
Marketing	3.01	0.96
Breeding and reproduction	2.96	0.96
Production management	2.89	0.77
Herds records	2.80	0.93
Production records	2.68	0.88
Leadership in agriculture	2.03	0.99
Use of computer	1.91	0.82

Source: Field Survey, 2014

The result in Table 2 showed the result of quality of educational programmes dealing with topics offered in livestock production as rated by farmers. The result indicate that the quality of educational programmes of different topics in livestock production is high and use of computer (x = 1.86) is low and needed further training. This result agrees with Sabyasachiroy (2003) who asserted that with adequate training programmes, the needs of the farmers can be met in these areas of training needs.

Another important issue is not just having education or training for the farmer but having effective or qualitative educational programmes for sustainable development. A training needs assessment should act as an integral guide to developing programmes so that appropriate content is generated. The farmer's perceptions about the quality of education training programmes in the followings areas were high. Agricultural credit (x = 3.81); health and diseases (x = 3.30); feeds and feeding (x = 3.30); financial planning (x = 2.19. As agriculture systems becomes more complex, farmers accessing technical knowledge and skills becomes crucial to be relevant in globally competitive environment.

Table 2: Quality of Educational Programmes offered in Livestock Production as rated by Farmers (N=150)

Educational Programme	Mean	Standard Deviation
Agricultural credit	3.81	0.87
Health and disease	3.30	0.92
Feeds and feeding	3.30	0.83
Financial planning	2.19	0.86
Marketing	2.08	0.06
Breeding and reproduction	2.03	1.96
Production record	2.00	1.95
Herd record	2.00	1.95
Production management	1.95	1.01
Leadership in agriculture	1.89	0.00
Use of computer	1.86	0.97

Source: Field Survey, 2014

The result of the binary logistic regression in Table 3 shows that at 5% level of significance, the hypothesis that the selected socio-economic variables have significant effect on the interest of farmers in receiving training is rejected. There was a significant change in -2 log likelihood. This suggests that there was a significant cause-effect relationship between interest of farmers in receiving training and the selected explanatory variables. The Cox & Snell R square (coefficient of determination) (R^2) is 0.589. This indicates that 58.9% variation in the usage of indigenous post harvest processing and storage techniques is accounted for by variations in the selected explanatory variables, suggesting that the model has explanatory power on the usage of indigenous post harvest processing and storage techniques. The Nagelkerke R square (adjusted R^2) also supported the claim with a value of 0.735 or 73.5%. This implies that the selected explanatory variables explain the behavior of the interest of farmers in receiving training.

The result in Table 3 shows that the probability of interest of farmers in receiving training increases with gender, farm income, education, herd size, farming experience and number of extension contact.

The implication of this finding is that the male gender tends to have higher probability in receiving training than their female counterpart. Furthermore, the probability of the farmers having interest in receiving training increases with farm income, education, herd size, farming experience and number of extension contact.

Table 3: Effect of Socio-economic Characteristics of Farmers on their level of Interest

Variable	B	S.E	Wald	Sig.	Exp(B)
Age	0.018	0.044	2.173	0.182	1.018
Gender	0.337	0.805	3.080*	0.029	2.309
Farm income	0.542	0.059	2.493*	0.114	1.098
Education	0.657	0.047	4.909*	0.030	.956
Household size	0.134	0.101	0.086	0.770	1.030
Herd size	0.543	0.150	5.022*	0.031	.951
Extension contact	0.590	0.134	4.657*	0.021	1.337
Constant	1.973	0.971	3.132*	0.042	7.195
-2 Log likelihood					124.315*
Cox & Snell R square					0.589
Nagelkerke R square					0.735

Source: Field Survey, 2014
*Wald statistics is significant at 5% level.

Table 4 shows the constraints to livestock production in the study area. In descending order, there were high cost of production, high mortality rate, lack of training extension personnel, lack of agricultural credits, long distances to training centers and customs and traditional practices. Agricultural development cannot occur in the face of these constraints. Through services such as extension education, farmers can access reliable and affordable supply of inputs, helps to increase productivity, generate high income and play roles in improving work and social conditions, addressing unemployment and food security.

Table 4: Constraints to Livestock Production as perceived by Farmers (N=150)

Constraints	Frequency	Percentage
High cost of production	136	90
High mortality rate	130	86.7
Custom and traditional practices	99	66
Lack of training personnel	121	80.7
Lack of agricultural credit	99	66
Distance to training centers	50	33.3

Source: Field Survey, 2014

CONCLUSION

Farmers have high interest in extension educational programmes. The importance of training in livestock production cannot be overemphasized. The aim is to impact new knowledge, teach better skills to bring about more efficient performance in the production of food and livestock. Farmers have indicated areas of training need in their activities. Adequate training in areas of production needs is a necessary factor to sustainable rural livelihood and consequently rural development. Effective training needs in diversified agriculture can

generate employment, improve quality in production and would have a multiplier effects across all livestock production system for better level of living.

RECOMMENDATIONS

- In as much as the male are more receptive to training and should be encouraged to do more, there is the need to encourage the female to be interested in receiving training as a means of enhancing farm productivity.
- Opportunities of getting formal education should be made available to the farmers in the study area as this will enhance their interest in receiving training thereby enhancing farm productivity.
- More extension agents should be deployed to the study area to help enlighten the farmers more on the need to receive training in order to enhance their farm productivity.

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