

Effectiveness of Information Sources on Improved Farm Practices among Cowpea Farmers in Oyo State

Ayoade A.R

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Abstract-Cowpea is a legume that is extensively grown throughout the sub-Saharan Africa. It is one of the cheapest sources of plant protein to a majority of the people in Nigeria. The essence of this study is to examine the effectiveness of information sources on improved farm practices among cowpea farmers in the study area. Multistage sampling technique was employed to select respondents for the study. In all, one hundred and twenty respondents were sampled. A structured interview schedule was used to collect information on variables such as socio-economic characteristics, effectiveness of information sources on Agricultural production and problems militating against cowpea production. The data collected were analyzed using descriptive analysis such as frequency distribution and percentage, while Pearson Product Moment Correlation was used as the statistical tool. The result revealed that most of the respondents are in their active age, married with household size of 6 – 10 members. Information from friends and mass media such as radio and television were ranked to be the most effective sources, and inadequate income was ranked first among the problems militating against cowpea production. The result of Pearson product moment correlation shows that a significant relationship was found between the socio-economic characteristics of the respondent Age (0.33), House hold size (0.22), years of experience (0.08) and effectiveness of information sources. It is therefore recommended that subsidy should be provided on inputs so as to enhance production and increase farmers' income.

Keywords- Information Source, Effectiveness, Cowpea, Farm practice, Agricultural information.

I. INTRODUCTION

Agriculture is a major sector of Nigeria's economy as it provides food and processed products for the populace as well as the provision of raw materials for Agro-allied industries (Odebode, 2007). One of the ways of achieving the role of the agricultural sector in Nigeria's economy is through effectiveness of information sources on improved farm practices. Based on this understanding, the Federal Government has designed structures to implement several programs geared towards efficient and effective information dissemination with a view to improving agricultural production and rural development in the country. Agricultural information can be viewed as a process of communicating ideas skills and technology from extension to farmers. The importance of such information as an ingredient for advancement of agriculture cannot be over emphasized as its

inadequacy could be dangerous and turn to become a major constraint to agricultural development. (Adeola, 2008). The high output of agricultural research has led to a large pool of new agricultural technologies, which are yet to be disseminated to farmers. As it is supported by Abbas et al 2003, that most of the farmers are not fully aware of the recommended agricultural practices resulting in low yield per acre. In order to accelerate the pace of effectiveness of the research findings to farmers, a variety of communication channels have been adopted with the assumption that both the approaches and technical information packages are suitable to the farmers. This can be minimized only if recommended technology is effectively transferred from researchers to farmers who are the ultimate users of innovation. For communication of new ideas and skills to the farmers, interpersonal relationship, relatives, experienced farmers, Agricultural extension staff, printed material and dealers of agricultural inputs play a crucial role in establishing foundation store of the knowledge base for the farmers in shape of technological package, as Knowledge acquisition occurs with awareness exposure and at least a rudimentary understanding of how an innovation functions (Rogers, 1986). However, it is not definitely known which of the sources are more effective in transmission of information to the farmers. It is important to know the extent of effectiveness on awareness and adoption of recommended technology by the farmers, as Khan (2002) revealed that Nigeria's agricultural production is much lower than many other countries of the world, and that there is a big gap between actual yield and attainable potential yield of crops. Research has shown that farmers' information exposure is most likely to be an important factor influencing their adoption behavior as greater exposure is likely to enhance awareness about the latest recommendations and to lead farmers putting these recommendations into practice in a precise manner (Muhammad & Garforth, 1995). Cowpea is a legume that is extensively grown throughout the sub-Saharan Africa. It is a subsistence crop often intercropped with sorghum maize and millet. It is cultivated for its leaves, green pods, grains, Stover and mature pods. The young leaves and immature pods are used as vegetables while snacks and main dishes are prepared from the grain, as it is one of the cheapest sources of plant protein to a majority of people in Nigeria. As a result of the roles played by cowpea in the diet of Nigerians, it becomes imperative that information sources must be effective for any appreciable increase in cowpea production to take place. This study therefore examined the

effectiveness of selected sources of information in creating awareness among farmers about recommended technology for cowpea production. To achieve the objectives, the study provides answers to the following research questions. what are the socio-economic characteristic of the farmers involved in cowpea production? what is the level of awareness of the practices introduced to the farmers? what are the information sources available to farmers? what are the problems militating against cowpea production? The general objective of the study is to examine the effectiveness of information sources on improved farm practices among the cowpea farmers in Surulere Local Government Area of Oyo-State.

1) *Specific Objectives*

The specific objectives of the study are to:

- identify the socio-economic characteristic of cowpea farmers
- determine the level of awareness of the practices introduced to the farmers
- investigate the information sources available to the cowpea farmers.
- identify the problems militating against cowpea production.

2) *Hypothesis of the Study*

This hypothesis was tested in a null form to realize the objectives of the study.

Ho1: There is no significant relationship between the socio-economic characteristics of the respondents and effectiveness of information sources.

3) *Methodology*

The study was carried out in Surulere Local Government Area of Oyo-State. The population for the study comprised of sampled male and female cowpea farmers in the area. One of the major occupation of people in the study area is cowpea farming.

4) *Sampling Procedure and Sample Size*

The local government is an agricultural extension block of Oyo State Agricultural Development Programme (OYSADEP). The block is made up of eight cells from which the sample for this study was drawn. A multistage sampling technique was used in selecting the respondents for the study. Three cells were purposely selected due to high concentration of cowpea farmers in the areas, after which Four villages were randomly selected from each of the three cells making a total of 12 villages. Thereafter, 10 farmers were randomly selected from each village based on

the registered list of farmers obtained from the OYSADEP to arrive at a total number of 120 farmers.

5) *Measurement of Variable*

The independent variable of the study is the socio-economic characteristics such as Age, marital status, Educational level, Household size and years of experience. while the dependent variable is the effectiveness of information sources on improved farm practices which was measured on a 3 point scale-very effective, effective and not effective.

6) *Data Analysis*

Descriptive statistics used include frequencies count, percentages and mean, while Pearson Product Moment Correlation was used to determine the relationship between socio-economic characteristics of the respondents, level of awareness and effectiveness of the information sources.

II. RESULTS AND DISCUSSION

1. *Socio-Economic Characteristic Of The Respondents*

Table 1 shows that most of the farmers (69.3 per cent) were in the youthful age bracket of 30-49 years. Average age for the respondents was 45.2 years. The result of the findings also shows that 81.7 per cent of the respondents are male while the remaining 18.3 per cent are female. This implies that most farmers that are into cowpea production are male. Furthermore, Table 1 shows that most of the respondents (88.3 per cent) are married while others are single. Majority (72.5 per cent) of the cowpea farmers received some level of formal education while the remaining 27.5 per cent had no formal education. This implies that the literacy level in this study area is relatively high. This might help the farmers in faster adoption of improved cowpea practices and also aid extension work. On the issue of household size, Majority (64.2 per cent) of the respondents claimed to have 6- 10 house hold members. 26.2 per cent claimed 10- 15 members, while few of the respondents (0.8 per cent) claimed more than 15 members. The average household size of the respondent was 9. Finally table 1 revealed that 24.2 per cent of the respondents finance their farming activities from personal savings. 66.7 per cent obtained cooperative loans, while the remaining 9.2 per cent obtained bank loans.

Table 1: Distribution Of Respondents By Socio-Economic Characteristics N = 120

Age group (years)	Frequency	Percentage
< 30	3	2.4
30-39	32	26.7
40-49	51	42.6
50-59	23	19.2
> 60	11	9.3
Sex		
Male	98	81.7
Female	22	18.3
Marital status		
Single	3	2.5
Separated	1	8
Divorced	2	1.7
Widowed	8	6.7
Married	106	88.3
Educational level		
Non-formal education	33	27.5
Primary completed	48	22.5
Primary uncompleted	4	3.3
Secondary completed	27	40.0
Secondary uncompleted	5	42
Tertiary institution	2	2.5
Household size		
1-5	10	8.3
6-10	77	64.2

10-15	32	26.2
Above 15	1	0.8
Source of finance		
Personal Savings	29	24.2
Cooperative Loans	80	66.7
Bank Loans	11	9.2
Years of experience		
<5	15	12.5
5-10	20	16.7
>10	85	70.8

Table 2: Distribution Of Respondents By Awareness Of Cowpea Practices

Cowpea practices	Frequency	Percentage
Improved Varieties	80	66.6
Fertilizer Application	40	33.3
Agrochemicals	45	37.5
Processing	60	50
Land preparation	85	70.8

The result of the data on table 2 shows the distribution of respondents by cowpea production practices introduced to the farmers. 66.6 per cent of the respondents are aware of improved varieties on cowpea production. 33.3 per cent are aware of fertilizer application while 37.5 are aware of agrochemicals on cowpea production. Also 50 per cent and 70.8 per cent are aware of processing and land preparation respectively. Here it is necessary for extension workers to improve the level of awareness of practices. This is based on the fact that when there is an increase in the awareness of this practices, there will be the need for more information

regarding these practices by the farmers, which might further increase the adoption rate of the practices.

2. Effectiveness Of Information Sources On Cowpea Production

Table 3 shows the analysis of the effectiveness of information sources on cowpea production using a 3 point likert scale. It is revealed that the most effective interpersonal source of information on cowpea production available to farmers are friends who are non- professionals in information dissemination. The danger in such situation is

the likelihood of misrepresentation of message. The village extension worker who is professionally trained for information dissemination to farmers is not a major source of information. But for a successful and sustainable adoption of technologies, the farmers need to be adequately trained by the village extension worker on regular and continuous basis. This is necessary to save farmers from being misguided, as Oladosu (2004) pointed out that adoption and utilization of appropriate technology is largely dependent on the effectiveness and relevance of information dissemination and the ability of agents to persuade the farmers. It can be inferred from table 3 also that farmers rely more on radio and television as a means of getting information through the mass media as was reported by

most of the respondents, which implies that most of the respondents listened to radio and television program me, indicating that agricultural programmes on radio and television have impact on farm families. Among group contact methods, farm centers were the major sources of information for cowpea production technologies. This points to the fact that farm centers could in addition to other sources be an important way of disseminating information among farmers. A general look at the effectiveness of information sources on table 3 reveals that village extension worker ranked 11th which is the lowest among others. This might be due to the fact that friends and village heads are used as contact farmers, which makes extension agent come into contact with only few farmers

Table 3:Distribution Of The Respondent Based On Effectiveness Of Information Sources On Cowpea Production

Source	Very Effectives	Effective	Not Effective	Mean Score	Ranking
Interpersonal					
Friend	120 (100.0)	-	-	2.00	1
Village head	114 (45.0)	4 (3.3)	2 (1.7)	1.93	2
Extension agent	1 (0.8)	9 (7.5)	110 (91.7)	0.09	11
Mass media					
Radio & Tele	56 (46.7)	61(50.8)	3 (2.5)	1.44	3
Posters	19 (15.8)	100(88.3)	1 (.8)	1.15	4
Newspaper	6 (5.0)	112(93.31)	2 (1.7)	1.03	6
Extens.bulleting	4 (3.3)	12(93.3)	4 (3.3)	1.00	8
Group contact					
Farm centers	20(16.7)	93(77.5)	7(5.8)	1.11	5
Demons.plot	13 (10.8)	95(79.2)	12 (100)	1.01	7
Exptal.station	13(10.8)	69(57.5)	38 (31.7)	0.79	10
Research inst.	44 (11.7)	88(73.3)	18 (15.0)	0.96	9

Source: Field survey 2009.

3. Problem Militating Against Cowpea Farmers

Table 4 shows that low level of income is the most serious problem encountered by cowpea farmers in the study area which was ranked first with a mean score of (1.89), followed by inadequate transport facility (1.86), high cost of input (1.05), harvesting problem (1.44), pest and diseases (1.37), unfavorable weather condition (0.98), inadequate

storage facilities (0.82) and lack of awareness (0.19) respectively. This implies that low level of income and inadequate transportation facility are the most serious problems encountered by cowpea producers in the study area

Table 4: Distribution Of The Respondents Based On Problem Militating Against Cowpea Farmers.

	Serious problem	Mild problem	Not problem	Score	Ranking
Low level of income	109 (90.5)	9 (7.5)	2 (1.7)	1.89	1
Pest and diseases	48 (40.0)	68 (56.7)	4 (3.3)	1.37	5
Harvesting problem	78 (65.0)	17 (14.2)	25 (20.8)	1.44	4
High cost of inputs	6 (5.0)	114 (95.0)	-	1.05	3
Inadequate storage facilities					
Lack of awareness	19 (15.8)	60 (50.0)	41 (34.2)	0.82	7
Unfavorable weather condition	7 (5.8)	9 (7.5)	14 (86.7)	0.19	8
Inadequate Transport facility					
	13 (10.8)	92 (76.7)	15 (12.5)	0.98	6
	110 (91.7)	8 (6.7)	2 (1.7)	1.86	2

Source: Field survey, 2009

4. Test Of Hypothesis

H01: There is no significant relationship between the socio-economic characteristics of the respondents and effectiveness of information sources. Based on the relationships between the socio economic characteristics of the respondents and the effectiveness of information sources in the study area, data on table 5 shows a positive and significant relationship between effectiveness of information sources and Age ($r = 0.334^{**}$), Household size ($r = 0.219^{*}$) and years of experience (0.083^{*}). This is an indication that age, household size and years of farming experience plays significant roles in determining the information sources that are effective to farmers on cowpea production.

Table 5: Relationship Between Socio-Economic Characteristics And Effectiveness Of Information Source:

Characteristic	Pearson correlation	Significant level	N
Age	0.334**	0.00	120
Sex	- 0.132	1.151	120
Educational level	- 0.080	0.386	120
Years of experience	0.083*	0.370	120
Household size	0.219*	0.016	120

Source field survey, 2009.

III. CONCLUSION

The study has identified the most effective sources for disseminating production practices on cowpea, as well as identified the major problems faced by cowpea farmers in the study area. Based on these, efforts should be directed towards improving the level of awareness of these practices by organizing training workshop for farmers by extension agencies. Also subsidy should be provided on inputs by government and private agencies so as to enhance production and increase farmers' income.

IV. REFERENCES

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