

Information Needs of Cowpea Farmers in Ibadan/Ibarapa Agricultural Zone of Oyo State, Nigeria

Adeola, R. G., J. G. Adewale and O. O. Adebayo

Department of Agricultural Economics and Extension,

Ladoke Akintola University of Technology, Ogbomosho – Nigeria

e-mail: adeola.rg@lautechae.edu.com

Abstract: This study gives an account of information needs of cowpea farmers in Ibadan/Ibarapa Agricultural zone of Oyo State. Multistage random sampling technique was used in the selection of 90 respondents as the sample for the study and structured interview schedule was used to solicit information from the respondents. The data were collected from Akinyele, Ido and Lagelu local government areas of Oyo state. The data were analyzed using frequency counts, means, percentages, standard deviation and Chi-square. The study reveals that majority (60%) of the respondents belong to the high group of information need on cowpea production technology whose information needs include land preparation, high yielding varieties, seed treatment, seed rate, method of weed control, pest and disease management of cowpea, doses and methods of pesticide application, harvesting, processing storage and marketing. The result also shows that the higher (or lower) the farming experience of cowpea farmers the higher (or lower) their information needs suggesting that several years of cowpea farming could inform their quest for new knowledge about its production. The study therefore concluded that cowpea farmers in the study area are very keen to seek information about improved techniques of cowpea production.

Keyword: Information needs, Cowpea, Technology, ADP

INTRODUCTION

In Nigeria, several efforts have been made to reverse the trend of agricultural decline during the past two decades. Besides, one of the problems militating against the development of agricultural sector has been closely linked with ineffective agricultural extension services. Through agricultural extension, farmers are informed of improved farming practices as well as new technical and economic possibilities that could be of great benefits if adopted. Hence, the ingredients of success in agricultural transformation through extension must include the fact that:

- Extension must have something to extend such as new technology and practice.
- Innovation must be effectively communicated to farmers.

However, rejection of an innovation by farmers may be due to lack of the above conditions and not that the farmers are conservative as often erroneously believed (Obibuaku, 1996). 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 the advancement of agriculture cannot be over-emphasized as its inadequacy

could be dangerous and turn to become a major constraint to agricultural development.

Many Non-Governmental Organisations (NGOs) and Private Extension Agencies (PEAs) in Nigeria now undertake agricultural extension services to people as part of their development programmes. For instance, the Agricultural Programme of Shell Petroleum Development Company (SPDC) offers free agricultural services to their host communities as part of their social responsibilities. Justice for Peace and Development Commission of Catholic Diocese is also in this category. This is an indication that PEAs services are taking active part in agricultural technology transfer process in the country (Isifel, 2001).

Cowpea is a legume that is extensively grown throughout the sub-Saharan Africa. It is a subsistence crop often intercropped with sorghums, maize and millet. It is cultivated for its leaves, green pods, grains and stover and mature pods. The young leaves and immature pods are used as vegetables while snacks and main meal dishes are prepared from the grain. Cowpea is one of the cheapest sources of plant protein to a majority of the people in Nigeria.

Current estimate places annual world cowpea grain production at 4.9 million Mt (Singh *et al*, 1997) and about 95% of this is grown in Africa. Nigeria in turn accounts for upwards of 62% of world production. Nigeria is the largest cowpea producer in the world with about 3 million Mt on 4.4 million hectares annually (FAOSTAT, 2006).

Cowpea grains are consumed directly following boiling, or as a component of meals which also include porridge made from cereals or root crops. Cakes (*akara*) made from mashed and fried

seed are also sold as fast food along roadside in Nigeria. (IITA, 1997).

As a result of the role played by cowpea in the diet of Nigerians there is need to involve farmers in the identification of information needs perceived by the farmers as relevant to cowpea production. Besides, the unique nature of climatic conditions of Ibadan/Ibarapa zone characterised with heavy rainfall, relative high humidity, which favour the disease infestation and problems of insects attack on grains both in the fields and stores, make it imperative for the farmers to have access to information as regard the basic cowpea production technologies in the study area.

Objectives of the study

The study is out to give an account of information needs of cowpea farmers in Ibadan/Ibarapa Agricultural zone of Oyo State. Specifically, the study is set out to:

- i. examine the personal characteristics of farmers in the study area.
- ii. determine the farmers' perception of information needs on cowpea production technologies.

METHODOLOGY

The study was carried out in Ibadan/Ibarapa agricultural zone of Oyo state, Nigeria. The climate is equatorial, notably with dry and wet seasons and relatively high humidity. The dry season lasts from November to March while the wet season starts from April and ends in October. The vegetation of the zone is mostly evergreen forest, found in the southern part of the state where lumbering, plantation farming of cocoa, oil palm and cashew is practiced. Majority of the inhabitants are farmers who engage in

cultivating various food crops like maize, soybean, cowpea, yam, cassava, melon, sorghum and vegetables. The zone is blessed with state, federal and international agencies that provide advisory services and technical support to farmers. Such agencies include:

- (i) Oyo State Agricultural Development Programme (OYSADEP)
- (ii) National Institute for Horticultural Research and Training (NIHORT)
- (iii) Institute of Agricultural Research and Training (IAR&T)
- (iv) Cocoa Research Institute of Nigeria (CRIN)
- (v) International Institute for Tropical Agriculture (IITA)

A multi-stage sampling procedure was employed to purposively select three local government areas in the zone namely Akinyele, Ido and Lagelu, based on the concentration of cowpea farmers in these areas. Each local government represents an agricultural extension block of the OYSADEP. Three cells were randomly selected from each of the blocks. In each cell, 10 cowpea farmers were further selected purposively to arrive at a sample size of 90 respondents.

A structured interview schedule was used to obtain necessary information relating to cowpea production. The instrument was tested for both its content validity and reliability on other local government councils (Afijio, Egbeda and Oluyole) neighbouring the study area. Content validity of the instrument was determined with the assistance of experts while its reliability was determined using the test-retest method. Results of the two administrations were correlated and reliability coefficient ranged from 0.74 to 0.87. Data were

analysed using frequency counts, percentages, means and standard deviation.

Measurement of Variables - The dependent variable is the information needs on cowpea production technology viz. land preparation, high yielding varieties, seed treatment, seed rate, method of weed control, pest and disease management of cowpea, doses and methods of pesticide application, harvesting, processing storage and marketing.

A rating scale of 1 to 3 was used to measure the degree of information need. Respondents were asked to indicate on a scale of 1 (No need) to 3 (Great need) the extent of their information needs on cowpea production technologies.

RESULTS AND DISCUSSION

Results from Table 1 show that majority of the respondents (75.5%) fell within the age range of 26 - 40 years while only 20% of the respondents were within the age group of above 40 years. This is an indication that majority of the respondents are young and active with enough strength for farming. Also, their relatively young age might make them receptive to new techniques of farming (Eddy, 2002). About 93% of the respondents were male while 7.2% were female. This is an indication that female participation in cowpea cultivation in the study area is very low. This agrees with the findings of Tiplida *et al* (2006) that few women cultivate cowpea.

Also a majority of the respondents (90%) had one form of formal education or the other while only 10% had no formal education. This may positively influence their knowledge of innovations as asserted by Williams *et al* (1984)

that educated people tend to embrace knowledge of modern farming practices. More than half of the respondents (66.6%) cultivated farm-land ranging from 1 to 5 hectares while 27.8% cultivated less than 1 hectare of land and others cultivated more than 5 hectares of farm land. It may be inferred that the bulk of the farmers are small holders.

About 46.7% of the respondents had farming experience greater than 10 years with 40% of them indicating farming experience within the range of 5 to 10 years while, only 13.3% had farming experience less than 5 years. This long farming experience is likely to enable them identify correctly their information needs regarding techniques of cowpea production. Most of the respondents (93.3%) had access to extension services being rendered by OYSADEP extension outfit. This is an indication of effective and wide coverage of the study area by the extension unit of OYSADEP.

Table 1: Personal characteristics of respondents (n = 90)

Category	Frequency	Percentage
Age (years)		
20 -25	4	4.4
26 – 30	27	30.0
31 – 35	20	22.3
36 – 40	21	23.3
40 and above	18	20.0
Gender		
Male	84	92.8
Female	6	7.2
Education		
No formal education	9	10
Adult education	7	7.8
Primary education	13	14.4
Secondary Education	25	27.8
Post secondary Education	36	40
Farming Experience		
< 5	12	13.3
5 -10	36	40.0
> 10	42	46.7
Access to OYSADEP extension services	*84	93.3
Access to extension services rendered by other agencies	30	33.3
Total	90	100

Source: Field Survey, 2004

* Multiple Responses

As shown in Table 2, the total score of information need of each respondent on cowpea production technology was obtained. Means and standard deviations were calculated and the respondents' information needs were categorized into low, medium and high levels. The study revealed that majority (60%) of the respondents belonged to high information need group followed by medium (34.4%) and low (5.5%) information need group.

The above trend could be attributed to high level of contacts by respondents with extension personnel which resulted in high level of awareness and innovativeness. Besides, high level of education by a majority of respondents might also be responsible for high degree of information needs on cowpea production technology.

Table 2: Classification of respondents based on information needs on cowpea production technologies (n = 90)

Category of information needs	Score on information	Frequency	Percent
Low	> 20	5	5.50
Medium	20 – 25	31	34.40
High	26 – 30	54	60.00

Field Survey: 2004

It is evident from Table 3 that respondents rated the information need on cowpea production technology in declining order of need; storage was rated as the greatest with a mean of 2.72 followed by harvesting and processing (mean = 2.69), pests and diseases management (mean = 2.63), marketing (mean = 2.63), high yielding variety (mean = 2.61), seed treatment (Mean = 2.60), method of weed control (mean = 2.52), doses and method of pesticide application (mean

= 2.50), seed rate (mean = 2.47) and land preparation (2.27).

Table 3: Respondents' perception of information needs on cowpea technologies (n = 90)

Variables	Mean	Standard Deviation	Rank
Storage	2.72	0.50	1
Harvesting and Processing	2.69	0.47	2
Pest and Disease management	2.63	0.48	3
Marketing	2.63	0.51	4
High yielding variety	2.61	0.61	5
Seed treatment	2.60	0.49	6
Weed control	2.52	0.60	7
Doses and methods of pesticide application	2.50	0.62	8
Seed rate	2.47	0.69	9
Land preparation	2.27	0.78	10

Field Survey: 2004

Based on the relationships between the demographic characteristics of the respondents and the degree of information need on cowpea production technology among farmers in Ibadan/Ibarapa zone area of Oyo State, farming experience happens to be the only significant independent variable (Table 4). This is an indication that farming experience plays a significant role in the identification of the areas where farmers require information on cowpea production technology. Besides, several years of experience in cowpea production might be a contributory factor that makes the farmers to seek information about solving persistent production problems.

Table 4: Relationship between the needs of farmers on cowpea production technology and their personal characteristics

Variable	χ^2 – value	Degree of freedom	P - value
Age	1.95	5	0.377
Gender	1.95	2	0.398
Educational level	1.02	2	0.400
Farming experience	66.33	25	0.000* *
Access to OYSADEP extension services	1.76	1	0.387
Access to extension services from other agencies	1.06	3	0.095

* * Significant at 0.01

CONCLUSION AND RECOMMENDATIONS

The study has brought out several practical implications on the identified information needs and greater efforts are required towards this direction by the change agencies for effective transfer of cowpea production technology and its utilisation by the farmers to enhance productivity. Also, it established the existence of greater linkage between the OYSADEP extension outfit and farmers in the study area as greater percentage of farmers had access to its extension services. However, despite farmers' greater accessibility to extension services, information on improved cowpea production technologies is still inadequate.

Therefore, agents of OYSADEP extension unit and other agencies responsible for transfer of technology should intensify efforts at training of farmers on improved technology of cowpea production.

Besides, the training given to farmers should be aided with bulletin, brochure and extension leaflets on cowpea production since most of them are literates. Also, the linkage between the research institutes and OYSADEP extension unit should be strengthened so that extension agents could have access to recent work on cowpea production technology.

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