### **SOURCES OF INFORMATION FOR RICE PRODUCTION TECHNOLOGIES IN LAVUN LOCAL GOVERNMENT AREA OF NIGER STATE**

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**ABSTRACT**

The study examined the sources of information for rice production technologies in Lav tin Local Government Area of Niger State using a sample size of 76 respondents. The data were collected using interview schedule and documents obtained from Agricultural Development Project (A DP). The data was analyzed using descriptive statistics, chi squire test and likert scale. The results showed that all the respondents (100%) were aware of improved rice varieties, fertilizer and milling/processing technologies. Friends were the major sources of interpersonal information as indicated by S6.84 percent of the respondents. The main source of information through the mass media was Radio/t clevis ion as was reported by 90.79 percent respondents. On the group contact, cooperative societies were the major sources of information among the farmers as revealed by 36. S 4 percent of them. Overall, radio/television was the most popular source of information followed by friends, village heads and cooperative societies, which ranked T'1 . 3rJ and 4th respectively. Village extension workers ranks 5th. On the frequency of extension contact, the study indicated that almost 65. SO percent of the respondents did not receive extension agent at all. Further analysis showed that there is a highly significant relationship between the adopted technologies and information sources. Majority of the respondents have favourable attitude towards the existing technologies. It is recommended that extension personnel's with the appropriate training should be made to disseminate agricultural information.

### INTRODUCTION

Communication is significant to any teaching situation: it is vital tool for promoting knowledge flow, information dissemination and delivery of learning contents in extension services. Communication in extension is defined as a process of interaction to transmit information, ideas, technology and feelings etc from extension agent to the farmer which result in a charged situation. According to Okwu and Okwoche (1998) adoption of improved technologies to a greater extent depends on the intensity of communication, because improved Agricultural technologies in form of agro-chemical, improved variety, fertilizer etc need to reach the farmers while feed back in terms of the constraints facing the farmers need to get the research institutes for appropriate solution.

The main purpose of Agricultural extension services is to communicate relevant and useful technological innovations to the farmers and motivate them to adopt the innovations to facilitate increase in Agricultural output (Adedoyin 1989). To achieve this, the extension worker who is the major information sources must be adequate and have good communication skills to effectively communicate, teach and demonstrate new farm practices to farmer.

Several attempts have been made to increase rice production in Nigeria among which are the introductions of over fifty improved rice varieties in various ecological rice growing zones in the recent time by research institutes and more recently the release of Narica rice by West Africa Rice Development Association (Special Programme on food Security, 2004). With this background, it becomes imperative that communication must be effective for any appreciable increase in rice production to take place. Ill is studv is therefore interested in identifvinu the sources of information for rice production technologies available to fanners in Lavun Local Government Area of Niger State, in order to determine the reliability. authenticity and usefulness of the information to farmers.

**Objective of study**

The main objective of this study is to determine the sources of information for rice production technologies in l.avun LG A, Niger State. The specific objectives are to;

1. Determine the awareness of the technologies in the study area.
2. Determine the sources of information for rice production technologies variable to the farmers in the area.
3. Determine the regularity of extension contact
4. Determine the attitudes of farmers toward rice production technologies

**Methodology**

**The Study Area**

This study was conducted in Lavun Local Government Area of Niger Stale. Nigeria. Lavun Local Government is located in the Southern Guinea Savanna region of Nigeria with land area of about 4.707.50 square kilometer. The area falls within Latitude 80 - I00N and Longitudes 30 - 80 Last.

The study area experiences two distinct climate seasons in a year (rainy and dry season). Rainfall is steady and is evenly distributed falling usually between Mid April and November (1000 - l,500mm/annual) peaking in August. Lowest temperature is recorded during the harmattern (November to March) period which is characterized by dry dust - laden winds. Average monthly temperature ranges from 230C to 290C.

**Data Collection**

The data for the study were obtained from a combination of primary and secondary sources but mainly through the former. The later was obtained from records and documents provided by the Niger State Agricultural Development Project (NSADP).

Additional secondary data came from official documents of the state Ministry of Agriculture and Natural Resources (MANR) as well as other publications on adoption of rice production technologies. The primary data were obtained from a cross-sectional survey of the farmers directly involved in rice production with the use of an interview schedule. Data were collected during 2004 cropping season with the assistance of the extension officers attached to each of the villages/localities sampled.

**Measurement and Analysis of Data**

Sources of Information was ensured using Ladele’s (1990) format: Farmers were asked to indicate sources of information available to them from a list of selected sources including interpersonal, mass media and group contact. The data collected were analysed using descriptive statistics such as frequency and percentages while chi-squarc test was used to determine the relationship between the technologies and information sources.

Attitude toward rice production technologies: This was measured by providing the fanners with sets of statements (both positive and negative) on rice production technologies. From the list of options provided, respondents were asked to pick the option that best describe their feeling. The options are a 5 - point likert scale of Strongly Agree (SA). Agree (A). Undecided (U) Disagree (D) and Strongly Disagree (SD). Responses to positive statements were scored as SA 5. A -4. U-3. D=2 and SD=I. Responses to negative statements were scored as SA=I. A~2, U--3. 1)=-4 and SD'-5. (Oladcle et al, 1999).

**Result and Discussion**

**Awareness of Rice Production Technologies**

The result of the data in fable 1 shows the distribution of respondents by rice production technologies communicated to the farmers. Hundred percent each of the respondents were aware of improved rice varieties, fertilizer and milling/processing technologies respectively. About 84.21 percent of the respondents were aware of the use of agro-chemicals (herbicide) in rice production while 67 percent w ere in the know of the use of tillage/land preparation technologies. Here the role of extension education becomes indispensable. Extension educationists need to step out to beef up the awareness level of the farmers in this regard as a first step towards enhancing adoption.

Table 1: Distribution of Respondents According to their Awareness on Rice Production Technologies

|  |  |  |
| --- | --- | --- |
| Improved Rice Varieties | 76 | 100.00 |
| Fertilizer | 76 | 100.00 |
| Agro-chemical | 64 | 84.21 |
| Milling/Processing | 76 | 100.00 |
| Tillage/Land Preparation | 51 | 67.00 |

Source: Field Survey, 2004

Multiple response

Sources of information to farmers on Rice Production Technologies in Lavun LGA, Niger State. A close look at the findings in Table 2 reveals that the major interpersonal sources of information on rice production technologies available to farmers arc friends and village heads who arc non professionals in information dissemination. The danger in such situation is the livelihood of mispresentation of the message. The village extension worker who is professionally trained for information dissemination to farmers is not a major source of information. 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. Oladosu (2001) 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 fable 2 also that the farmers rely more on radio and television as means of getting information through the mass media as was reported by 90.79 percent of the respondents, which implies that nearly all the respondents listened to radio programme indicating that agricultural programmes on radio have impact on farming families. This agrees with the report on the socio-economic impact study of NSADP (1994). Which showed that farmers of all ages and literacy levels listen to farm programmes on radio.

Among group contact methods, cooperative societies were the major sources of information for rice production technologies. This points to the fact that cooperative societies could in addition to other means be an important way of disseminating information among farmers. Farm centres was next to cooperative societies with 15 percent response. This shows that farm centers in the area are not making significant impact.

A critical look at the whole sources of information in Table 2 reveals that village extension worker ranked 5th after Radio/TV. friends, village heads and cooperative society. The 5th ranking of the village extension worker is probably due to the use of friends, village heads and cooperative members as contact farmers. Therefore, extension agents come into contact with only few farmers.

Table 2: Distribution of Rice Farmers according to sources of Information on Rice Production Technologies

|  |  |  |
| --- | --- | --- |
| **Source of Information** | **Of Rice farmer (n=76)** | **Percentage** |
| **a. Interpersonal**  1. Friend  2. Village head  3. Village Ext. Worker  4. Private Firm  **b. Mass media**  1. Radio/Television  2. Posters  3. newspaper/Magazine  4. Ext. Bulletin/Leaflets  **c. Group Contact**  1. Cooperative Society  2. Fa/rm Centres  3. Demonstration Plots  4. Experimental Station | 66  38  26  15  69  4  18  4  28  12  1  2 | 86.842  50.003  34.215  19.747  90.791  5.269  23.686  5.269  36.844  15.798  1.3211  2.6410 |

Source: Field Survey Data (2004)

**Frequency of Extension Contact**

The results in Table 3 indicates that 14.47 percent of respondents claimed to receive extension workers fortnightly while 19.74 percent of the respondents received extension agents once in a month. Almost 65.80 percent indicated that they did not receive extension agent at all. The organization structure of the training and visit (T&V) extension system varies with countries and even within a country. The model provides for a ratio of one village extension agents (VEAs) to one thousand farming families (FF). But Niger State Agricultural Development Project widen the ratio to I VEA: 1550 FF. In the study area, there are two extension blocks with 16 cells. However, 2 cells remain vacant.

As observed, agricultural extension personnel who are trained in the act of agricultural information dissemination are grossly inadequate. This has led to the existence of an extension gap, which needs to be filled.

Table 3: Frequency of extension contact

|  |  |  |
| --- | --- | --- |
| **Number of Visit** | **Frequency** | **Percentage** |
| Fortnightly | 11 | 14.47 |
| Monthly | 15 | 19.74 |
| Not at all | 50 | 65.79 |
| Total | 76 | 100 |

Source: Field Survey Data (2004)

Association between rice production technologies and sources of information The chi-square test value of 20.575 infers a statistically significant association between adopted rice production technologies and sources of information at P< 0.001.

The chi-square test in Table 4 indicates a highly significant relationship between the technologies and sources of information. This is based on the fact that when there is an increase in the number of technologies adopted by the farmer, the need for more information regarding these technologies also increases. In other words an increase in one or both will increase adoption rate.

**Table 4:** Association between rice production technologies and information sources of farmers in Lavun L.G.A., Niger State.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Rice production technologies** | **Source**  **interpersonal** | **of information Mass Media** | **Group contact** | **Total** |
| Improved Seed | 57 | 48 | 14 | 119 |
| Fertilizer Use | 66 | 51 | 22 | 139 |
| Agrochemical Use | 53 | 39 | 6 | 98 |
| Milling/Processing | 41 | 21 | 1 | 63 |
| Tillage/Land Preparation | 26 | 18 |  | 44 |
| Total | 243 | 177 | 43 | 463 |
| Person Chi-square Value | 20.575\*\*\* |  |  |  |
| Likelihood Ratio | 25.665 |  |  |  |
| Co-efficient of contingency Value | 0.979 |  |  |  |

Source: Field Survey Data (2004)

Note : \*\*\* Significant at P< 0.001

Attitude of Farmers Toward Rice Production Technologies in Lavun L.G.A, Niger State. The results in Table 5 show that most of the fanners have favourable attitude towards the technologies with attitudinal score above 50 percent. The fanners showed high interest because they discovered that a technology saves time, energy and increase farm income. However 61 percent of the respondents have negative attitude toward land preparation (tillage) technology. This may not be unconnected to the fact that some respondents are not aware of the technology as shown in Table 1.

**Table 5:** Distribution of rice farmers according to attitudes toward each technology in Lavun L.G.A, Niger State, Nigeria.

|  |  |  |
| --- | --- | --- |
| **Technologies** | **Unfavourable** | **Favourable** |
| Improved Seed  Fertilizer Use  Agro-Chemical  Milling/Processing  Tillage/Land Preparation | 41%  40%  48%  42%  61% | 59%  60%  52%  58%  39% |

Source: Field Survey Data (2004)

**CONCLUSION**

The study reveals positive attitude of farmers toward most rice production technologies, which is an indication that the farmers are willing to adopt more improved technologies. It is hoped that, the recommendations given in this study, if given careful consideration, will help in increasing the adoption of the technologies.

**RECOMMENDATIONS**

In order to expose the farmers and provide them with first hand information, extension agencies should periodically organize training workshops for farmers. Such workshops should be organized to address various aspects of rice production. It is important that these workshops are organized to address problems peculiar to the time/season it is held. This will enable the farmers to quickly put to practice what they have learnt on their farms. For maximum effectiveness, the airing of technology programmes through the Radio/TV should meet the following conditions namely simplicity of Language, broadcast must be practically demonstrated, the timing of broadcast must coincide target group prime time, the source of technologies must be clearly identify and there must be adequate input back up before airing begins.

There is the need to re-equip farm centers existing in the study area with adequate man power and demonstration plots, so that farmers can be trained in group of batches for them to see, hear, discuss, ask questions, get answers and practice the technology demonstrated. Similarly, National Cereal Research Institute (NCRI) should site demonstration plots at strategic locations in the area. On these plots, rice production technologies could be demonstrated to the farmers. It will provide means of learning together by fanners, researchers and the extensionist. It is important that extension personnel with the appropriate training and who are adequately equipped should be made to handle the act of Agricultural information dissemination based on this, government should lift ban on employment to enable ADR recruit more extension agents to (111 the existing vacancies. The extension agents should provide more information and create more awareness to the farmers to sustain the present high interest shown by the farmers and for them to avoid the mistake of the non adopters or rejection of technologies.

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