

EFFECTIVENESS OF RADIO IN DISSEMINATION OF AGRICULTURAL INFORMATION TO FARMERS IN RURAL SETTINGS OF NIGERIA.

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ABSTRACT

The use of radio for the purpose of gathering and disseminating agricultural information was investigated among 120 farmers who were purposively and randomly selected in two village settings. The three objectives of the study were; (1) to identify the agricultural technologies /recommendations which rural farmers used with the help of radio; (2) to assess the frequency by rural farmers' access radio in getting extension information; and (3) to assess the frequency by which the rural farmer listening to some radio programmes produced on farm practices in their vernacular. Results showed that the respondents used to source , on moderate level (averagely), information on the following technologies/recommendations on improved maize, from radio; improved maize varieties, seed rate, seed dressing, plant spacing, fertilizer application, post-harvest processing and storage. Further findings revealed that the majority of the farmers 60 (50%) had access to radio daily, 58 (48.33 %) weekly and the majority of the respondents ranked first in frequently listening to radio programmes with extension messages, in their vernacular.

KEYWORDS: Radio, rural farmers, extension, information, improved maize.

INTRODUCTION

Radio is widely used as a means of communication - sending and receiving information by people. Similarly, it has been found to be an effective means of disseminating agricultural information to farmers. Rural farmers in particular in many regions of the world find radio as a veritable source of deriving extension related information. Studies have revealed the various significant roles radio have played in sourcing agricultural information (Yazidu, 1973; Voh, 1981; Chikwendu *et al.*, 1996; Arokoyo, 1998; Omokhudu, 1999; and Fadiji, 2000). Indeed, it has been established that disseminating agricultural information in a result-oriented manner could be achieved through the instrumentality of established effective and efficient channels of communication among researchers, extension workers and farmers (Chikwendu and Omeneza, 1997). In another related study, Omeneza (1997) stated that radio is one of the most important media of transmission of information to the grassroots in Nigeria.

Onyibę *et al.*, (1999) found media support (radio and television) as strategic for passing extension information to farmers who produced maize in marginal zones of Nigeria. Media houses in northern Nigeria have contributed to the dissemination of agricultural information to farmers. Also, agricultural institutions like the National Agricultural Extension and Research Liaison Services (NAERLS) of Ahmadu Bello University (ABU), Zaria, Nigeria, have, for over three decades, produced programmes for farm broadcasts in both radio and television (Igunnu and Zaria, 1988) for the benefit of Nigerian farmers. Hence, a carefully planned radio programme, aired at an appropriate time, directed at the rural farmers, could provide an invaluable impetus to adoption process.

Maize (*Zea mays* L.) is a prominent staple crop in sub-Saharan Africa in general, and Nigeria, in particular. Research by various research centers in Nigeria and world-wide have led to development of improved maize. Notably, the Institute for Agricultural research (IAR), Ahmadu Bello University (ABU), Zaria, in collaboration with International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria have made substantial progress in the development of maize varieties with medium maturity (70-85 days) and varieties adaptable to high and mid altitude areas of northern savanna

of Nigeria (Fadiji *et al.*, 1996) with yield up to 6-8 t/ha in addition to their production package for farmers' adoption.

It was reported that IITA, Ibadan, Nigeria, in collaboration with some national research institutes, non-Governmental organizations (NGOs) and research networks, have boosted improved maize production in the West and Central Africa up to 259% from 1981 to 1996 (Reeves, 1997). The new varieties developed and released within this period have such attributes as; disease resistance, drought-tolerance, high-yielding and early maturing (e.g. within 85 days).

METHODOLOGY

This study focused on investigating the effectiveness of radio as a means of getting extension information by the rural maize growing farmers. For the purpose of this study therefore, two villages (Dan-Ayamaka and Kaya, respectively) located in two Local Government areas (Giwa and Kuridan LGAs respectively) of Kaduna State, Nigeria, were purposively selected. The two villages were strategically located in the Guinea savannah ecological region of Nigeria and known for cultivation of maize, and more importantly, having being duly exposed to extension interventions carried out by a national research institute (Institute for Agricultural Research (IAR) of Ahmadu Bello University (A.B.U.), Zaria as well as Kaduna State Agricultural Development Project (KADP).

With the cooperation and assistance of the KADP staff, a total of 910 registered farmers were pooled from the two villages out of which 420 were identified as improved maize growers. Through the instrumentality of both purposive and random sampling techniques, out of the 420 farmers, a total of 120 respondents were selected for this study. They were interviewed using structured questionnaire. The data received were thereafter decoded, analyzed (with the use of descriptive statistics) and interpreted appropriately.

In this connection, the three objectives of this study were;

- 1) To identify the technologies/recommendations, on improved maize, that the rural farmers used and derived extension information derived from radio
- 2) To assess the frequency of the rural farmers access to radio in deriving their extension information

Table 1: Distribution of respondents according information on technologies /recommendations on improved maize derived from radio.

Technology/Recommendation	Scores of radio users	
	Number	Percentages (%)
Improved maize	16	13.33
Seed rate	14	11.67
Seed dressing	15	12.50
Plant spacing	13	10.83
Fertilizer application	13	10.83
Herbicides	10	8.83
Pesticides	8	6.67
Post-harvest processing	17	14.17
Storage	14	11.67
Total	120	100

Source: Field survey, 2000.

- 3) To assess the frequency with which the rural farmers listened to some radio programmes on extension messages in their vernacular

RESULTS AND DISCUSSION

The initial problem of this study was to establish the sourcing of information on farm practices on maize by the rural farmers through radio.

Objective 1

The first objective of the study was to identify the technologies/recommendation on improved maize that the rural farmers used in deriving extension information derived via radio.

Table 1 shows that most of the respondents (17%) received information on improved maize post-harvest processing, on radio. This could have arisen from their apparent interest in preservation of their crops harvested and prevention of loss. The next highest percentage of the respondents (13.33%) used radio to get information on improved maize. This further stressed the interests of rural farmers in getting information on improved maize and any other related issues. The next highest percentage of the respondents were those who derived extension information on seed dressing technologies on radio (12.50%), followed by seed rate (11.67%) and storage (11.67%).

Both information pertaining to plant spacing and fertilizer application technologies were sourced by the respondents via radio and each got 10.83%. However, the lowest technologies which were sourced via radio were herbicides (8.33%) and pesticides (6.67%), respectively. This might not be unconnected with the fact that most of the respondents adopted improved maize which did not require much emphasis on herbicides and pesticides. These findings stress the importance of radio as source of information on farm practices by farmers (Williams, 1969; Yazidu, 1973; Fadiji, 2000; and Oyegbami and Fabusoro, 2003).

Objective 2:

The next objective of this study focused on how frequent the rural farmers have access to radio? Table 2 reveals the results and it is discussed below. In table 2, majority of the respondents (50%) had access to radio on daily basis. This gives an impressive attitude of the respondents to radio as a means of sourcing for extension information. Furthermore, those who had access to radio on weekly basis (48.33%) took the second position – which indicates further that rural dwellers/farmers, in northern Nigeria, consulted their radio often. And, the results show that very few of the respondents (1.66%) had access to radio on seasonal basis.

The foregoing findings, in a nutshell, lay credence to the dependence of rural farmers, in particular, and rural communities in general, on radio, as a source of gathering information (Obeng-Quaidoo, 1988; FAO/CTA, 2001; Chapman *et al.*, 2003; Blench and Slaymaker, 2002; Oyegbami and Fabusoro, 2003; and Benamrane, 2005).

Objective 3:

This study went further to investigate the frequency of the rural farmers in listening to some radio programmes produced in their vernacular (language – Hausa). The results in table 3 illustrate the outcome. The seven (7) radio programmes aired on radio, in Hausa language, with extension components and available to the respondents were; (1) Noma Kankara, (2) Mu koma Gona, (3) Filin Manoma, (4) Noma Tushen Arziki, (5) Sallama Manoma, (6) Don Manoma, and (7) Ku-Sauraro Manoma.

The summation of the data in table 3 reveals that the majority of the respondents (292) were frequent in listening to the available radio programmes followed by those who did not frequently listen to the listed radio programmes (264) and then those who never (178) listen. These findings indicated that most of the respondents were aware of the radio programmes produced in their vernacular. Consequently, these findings is in consonance with other reports which highlight importance of giving extension/agricultural messages in local languages, on radio to farmers and rural areas (Yazidu, 1973; Obeng-Quaidoo, 1988, Onyibe *et al.*, 1999; Chapman *et al.*, 2002; Bell and Olsson, 2003; and Benamrane, 2005).

Table 2: Distribution of respondents according to their frequency of accessing radio.

Period of access	Scores of radio users	
	Number	Percentages (%)
Daily	60	50
Weekly	58	48.33
Bi-weekly	0	0
Monthly	0	0
Bi-monthly	0	0
Seasonally	2	1.66
Never	0	0
Total	120	100

Source: Field survey, 2000.

Table 3: The respondents' frequency of listening to some radio programmes in vernacular (Hausa language).

Radio programme in vernacular	Rate of listening					
	Very frequent	Frequent	Not frequent	Rarely	Never	Total
<i>Noma kankara</i> ¹	34	74	10	1	1	120
<i>Mu koma Gona</i> ²	13	77	16	5	9	120
<i>Filin Manoma</i> ³	2	39	43	1	35	120
<i>Noma Tushen Arziki</i> ⁴	11	36	59	2	12	120
<i>Sallama Manoma</i> ⁵	2	16	26	31	45	120
<i>Don Manoma</i> ⁶	3	17	46	12	42	120
<i>Ku-Sauraro Manoma</i>	5	21	51	15	28	120
Total	70	280	251	67	172	120
Rank	4th	1st	2nd	5th	3rd	840

Source: Field survey, 2000.

Keys: The translation of the languages of the radio programmes in vernacular (Hausa) to English is as follows:

- | | | |
|---------------------------|----------------------|---------------------|
| 1= Farming in rural Areas | 4= Farming in Wealth | 7=Let us Go Farming |
| 2= Let's go back to Farm | 5=Welcome Farmers | |
| 3= Programme for Farmers | 6=Calling Farmers | |

CONCLUSION(S)

From the findings of this study, the following conclusions have therefore been arrived at;

- ✓ Most of the rural farmers sourced their agricultural information from radio and depended so much on it. Specifically, the rural farmers derived information on improved maize technologies, from radio, which have been of tremendous value to them.
- ✓ This study have shown that most of the rural farmers got access to their radios on daily and weekly routine/bases – which places emphasis on their frequency of access which was high and impressive.
- ✓ The rural farmers frequently listened to extension related messages on radio produced in their vernacular – which can give them easier understanding and satisfaction.
- ✓ Some group of farmers however still do not have access to radio nor listen to the extension components available in their vernacular. This implies that they do not get some of the available extension message which could have improved their adoption and farming activities.
- ✓ Rural farmers, if given conducive atmosphere and access to radio, could be enabled to get adequate information on technologies/recommendations on improved crops and farm practices.

RECOMMENDATIONS

In view of the foregoing findings made from this study, it is hereby recommended that;

- ✓ The world bodies (e.g. FAO, UNDP, etc) and Non-Governmental organizations (NGOs) could provide rural farmers, free-of-charge, transistor radios (e.g. the type that does not use batteries or power) so that they can have more access to agricultural information useful for their farming practices/activities.
- ✓ Governments (at all tiers) in Nigeria, and Non-Governmental Organizations, should provide enlightenment campaigns to rural farmers to always use radio and derive the so much needed agricultural information from it.
- ✓ Rural farmers should be informed regularly by the extension agents (EAs) on the type of programmes on agricultural /farm practices aired on radio which

could be of benefit to them.

- ✓ Extension Agents (EAs) should further encourage rural farmers to frequently consult their radios for extension messages available therefrom.
- ✓ Rural communities should be mobilized to build (establish) specifically their own radio stations (e.g. F. M.) which could be devoted primarily for dissemination of extension messages (in their own languages) so as to improve their farm practices, and by extension, their productivity.
- ✓ Radio producers should endeavour to produce and air more radio programmes with extension components, devoted towards meeting the yearnings of the rural farmers in general and rural farmers in particular.

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