



Assessment of Fertilizer Application and Numbers of Extension Visit in Gombe State

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ABSTRACT

The main objectives of this study was to determine the fertilizer application method taught farmers and number of extension visits. The research design was a survey, the area of study is Gombe state which is located in the North Eastern part of Nigeria. Two research questions and null hypotheses were formulated and guided the study. The population of the study comprised of farmers in Gombe State who practice irrigated Agriculture. The sample size of 200 farmers was used in the research. Structured Questionnaires were used to collect data from the respondents. Quantitative data collected was analysed using SPSS package where both percentage and chi-square statistical tools were used. The result reveals that, 80% of the respondent admitted that they have been taught fertilizer application method and visited 2-3 times by extension workers in a season. The paper recommended that more extension workers should be employed so that wider area will be covered. In addition number of time of visit per season is also to be increased so that the farmers will receive adequate orientation.

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INTRODUCTION

Agricultural development is the guide concerned with rural extension and with the lively hood of farmers and their families. The concept of rural development must therefore be considered with particular reference to agriculture, since the agriculture is basis of the lively hood of most rural families. In the past two decades there has been increasing emphasis on rural development programmes and project, and the recognition that the development of rural areas is just as building up of urban industrial complexes. Development must have two legs: urban industrialization and rural improvement. There are very strong reasons why resources should now be put into rural development. More than half of the people in the world and vast majority of the people in developing countries (Asia, and Africa are living in the rural areas) Maunder (1972). Therefore is necessarily to send the extension workers/agent to rural areas because most of the rural people gain part of all their lively hood from some forms of agriculture. Most of the people are still very poor and depend on agricultural practices and have benefited little from modern technology; therefore development should start from rural areas then to urban areas. (Jones and Garforth 1997)

The role of agricultural extension services in the development of agriculture throughout the world is not in doubt. It has remained one of the prime movers in the development of agriculture

and in variably in the development of rural areas. It is not easy to define agricultural extension in a short concise, phrase or statement attempt to define it properly would involve lengthy explanation of several principles and philosophies. However, different authorities and experts have defined extension in different forms and ways, all ending on the improvement of the standard of living of the people. Fisher and Asibaka (2002) defined extension as a system of education extending beyond class room to individuals on the farms and it's available to every member of the family. Fishers, thus analysed extension in term of family approach system whereby all members of the family are taking in to consideration in planning extension programme.

Vanden Ban and Hawkins (1988) defined extension as involving the conscious use from communication of information to help people form sound opinion and make good decision. They explained extension systematically as a process which help farmers to analysed their present and expected future situation, help farmers to became aware of the problems, which can arise in such analysis, increase knowledge and developing in to problem solving, and help to structure farmers existing knowledge, help farmers acquire specific knowledge related to certain problems solution and their consequences so that they can act on possible alternatives, help farmers to evaluate and

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improve their own opinion on farming and decision making skills.

Mouder (1972) defined extension as a science, which deals with the creation, transmission and application of knowledge designed to bring about planned changes in the behavioural complex of people with a view to help them live better life through learning new ways of improving their vocational enterprise and institution.

Involvement of government at different levels is very important to improve agricultural sector. According to Revera (2001), government of developing countries are confronting new extension challenges: on the one hand there is need to increase production to provide food for all citizen, raising from the income of rural population and reducing poverty; on the other hand there is need to manage the natural resources in a sustainable way in a rapidly changing world with new technologies developed all the time therefore, it is important that policy makers be aware of the key role that extension plays in the national economy development before modernizing and reforming the existing agricultural system. Extension mission by itself is challenging as it deals with uneducated rural poor with the aim of changing their behavior positively as compared to dealing with animals and plant at safe and comfortable research stations (Qamar, 2005). Despite the fact that Nigerian government gave an average attention to the agricultural research institutes, research stations in the country are too few to cover the whole country. Improved seeds and fertilizer application are basically tried in few research stations. But yet farmer do not have an adequate knowledge on how to apply fertilizer in such a way that the crop plant can derive maximum benefit from it, it is already established that 70% of fertilizer being applied by the farmers were not properly utilized by plan due to poor knowledge for fertilizer application method despite the availability of agricultural extension workers also no more research has been carry out to determine whether farmers were taught the proper method of fertilizer application. It's therefore necessary to investigate the method of fertilizer of application taught to farmers by agricultural extension and numbers visit in Gombe State.

Objectives of the Study

The main objective of this study is to determine the fertilizer application method taught to farmers and number of extension visits. Specifically the study seek to determine.

1. The extent to which farmer are taught how to apply fertilizer by extension worker.
2. The extent to which extension workers programme meet the farmers need.

Research Question

1. To what extent are farmers taught fertilizer application by extension workers?
2. To what extent do extension workers programme meet the farmers need?

Hypothesis

1. There is no significant relationship between the method of fertilizer application taught to farmers and number of extension visit.
2. There is no significant relationship between the method of fertilizer application taught to the farmers and programme planning on farmers need.

RESEARCH METHODOLOGY

The method of research design was survey, area of the study is Gombe State located in North Eastern part of Nigeria, with a latitude of 9°30 and 12° 30N and longitude of 8°45 and 11°45E. It shared border with Borno State and some part of Adamawa State by the East, Bauchi State by the west, Yobe State by the North and Taraba State by the South. The population of the study were farmers in Gombe state who practice irrigated Agriculture. The sample size of 200 farmers was randomly selected using stratified random sampling technique. Data was collected during 2016 farming season (April to November, 2016). The period covered both growing and harvesting period, which becomes easy for the farmers to answer the questions. Descriptive statistics was used for the analysis of this study using SPSS programme where both the percentage and chi-square were used and the result were reflected in cross tabulations tables.

RESULTS

Table 1: Fertilizer application taught VS Number of visits cross tabulation

| | | | Number of visits | | | | | Total |
|-------------------------------|-----|------------|------------------|-----------|-----------|-------|------------|--------|
| | | | 6-5 times | 4-3 times | 3-2 times | once | never come | |
| Fertilizer application taught | Yes | Count | 20 | 45 | 75 | 20 | 0 | 160 |
| | | % of Total | 10.0% | 22.5% | 37.5% | 10.0% | 0.0% | 80.0% |
| | No | Count | 0 | 0 | 0 | 15 | 25 | 40 |
| | | % of Total | 0.0% | 0.0% | 0.0% | 7.5% | 12.5% | 20.0% |
| Total | | Count | 20 | 45 | 75 | 35 | 25 | 200 |
| | | % of Total | 10.0% | 22.5% | 37.5% | 17.5% | 12.5% | 100.0% |
| Significance 0.013 | | | | | | | | |

Table (1) shows that 80% of the respondents admitted to have been taught fertilizer application by extension workers, while the remaining 20% have not been taught. Among those who have been taught, 37.5% indicated that they were visited by extension workers 2-3 times per season, while 10% and 22.5% received 6-5 time's visits respectively. The remaining 10% also admitted to have received visits 4-3 times per farming season. Among those who were not taught fertilizer application on the other hand, i.e., 20%, none was visited 3-2 times, 4-3 times, or 6-5

times by extension workers in a season. However, 7.5% were visited only once throughout the farming season. From the total respondents, 37.5% were visited 3-2 times per farming season, while 10%, 12.5%, 17.5%, and 22.5% of the farmers were visited 6-5 times, 4-3 times, once and never respectively. This shows that more farmers were taught on fertilizer application and are visited 3-2 times per farming season, which indicated significance relationship exist between fertilizer application taught and number of visits received by farmers

Table 2: Fertilizer application taught* Programmes planning whether meets farmers' needs Crosstabulation

| | | | Programmes planning whether meets farmers' needs | | Total |
|-------------------------------|-----|------------|--|-------|--------|
| | | | Yes | no | |
| Fertilizer application taught | Yes | Count | 100 | 60 | 160 |
| | | % of Total | 50.0% | 30.0% | 80.0% |
| | No | Count | 0 | 40 | 40 |
| | | % of Total | 0.0% | 20.0% | 20.0% |
| Total | | Count | 100 | 100 | 200 |
| | | % of Total | 50.0% | 50.0% | 100.0% |
| Significance 0.038 | | | | | |

Table (2) shows that 80% of the total respondents have been taught fertilizer application while the remaining 20% have not been taught. Among those who were taught (80%), 50% indicated that programmes meet farmers needs while for 30% reverse is the case. Consequently, those who have not been taught fertilizer application indicated that the programme planning did not meet farmers' needs. From the total respondents, 50% indicated that programmes planning meet farmers needs while the remaining 50% indicated it did not. This shows that more

people were taught on fertilizer application and programmes planning meet the farmer's needs. The figure 0.038 at the bottom of the table shows significance in relation since it is less than 0.5.

CONCLUSION

Extension services are vital tools for economic and social development, especially to the developing and less developed areas. This is true because it helped farmers to improved there farming method there by increasing their productivity and hence increase their level of

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income earning. This will also influence better living standard and modernity. The absence of extension services to local farmers can seriously delay economic growth and development. But if extension agent/workers are ready to do their work of orienting and educating the farmers on newly improved method of farming using appropriate method, farmers are likely to cooperate and accept. And if this is done, then higher agricultural productivity, development, and better living standard will be ensured. Also if farmers would be taught on how to apply different types of fertilizer their agricultural production would be increased.

In any country where agriculture is emphasized need agricultural extension services for good growth and development. The success of every society in general and Gombe State in particular toward outstanding extension services delivery can only be actualized through genuine acceptance of extension services by the farmers and willingness of the extension agent to offer the required services. Extension services therefore need the time and corporation of the farmers to function effectively and achieve its desired objectives, and the farmers in other hand need extension services to improve their farming method, then increase productivity, develop and improve their standard of living. This can only be achieve if the government will give more concerned on agriculture.

RECOMMENDATIONS

The following recommendation are therefore provided:

1. More extension staff should be employed so that wider area should be covered to meet various farmers with extension services. This will solve the problem of insufficient visit and teaching.
2. Other programme should be implemented example, farmer should be taught on modern system of farming, used of herbicide, insecticide, etc. in addition number of time of visit per season should also be increased so that the farmers will receive adequate orientation.
3. To aid the services of extension agent and provide conducive atmosphere for better service delivery the government should provide social amenities to the rural areas such as pipe bone water, road, bridges, electricity among others. The absence of these basic social amenities forms part of the problems of

lack of enough visitation by the extension agents.

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