

Agricultural Extension Staff Perceptions Concerning Training Needs in Helping the Potato Producers in The Mwaghavul Cheifdom, Plateau State, Nigeria

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Abstract:-A total of 70 questionnaires were developed and used for the collection of data from 70 selected farmers from the seven districts of the Mwaghavul land. Seven other questionnaires were specifically developed and used for the Agricultural Extension staff serving in the same area. The Agricultural Extension staff are the government workers sent to work with farmers to improve methods, techniques, and production capacities. Data collected were analysed using descriptive statistics (frequency distributions, percentages, rank order, and calculated arithmetic means). All farmers showed they had problems requiring the Extension staff to help. It was, therefore, concluded that the farmers feel it is important to have help from the Extension staff. It was observed that farmers considered future training even more important than present. Also, since the Extension staff considered storage facilities as the most important area for the present training, and keeping of seedlings as most important for the future training. It was concluded that at present, more training is required for storage facilities while in the future, training is needed for keeping of seedlings. It was revealed that both the Irish potato producers and the Agricultural Extension staff chose use of credit source, fertilizer application and storage facilities as very important areas for present training needs. The study showed that farmers from the selected districts put into practice recommendations made by the Agricultural Extension agents with Mangu farmers taking the lead. The study showed that farmers of Ampang West also received the most frequent visits by the Agricultural Extension staff. As for attendance at educational meetings, the study revealed that farmers at Ampang West attended the most meetings. Since all farmers indicated that they contacted the Extension staff when faced with problems, and most of them pointed out that the Extension staff response was unfriendly.

Keywords: Agricultural Extension Staff, Training Needs, Irish Potato, Producers and Farmers

I. INTRODUCTION

In outlining the procedure of this study, it was proposed that a review of literature be done related to the problems of production aspects of agricultural products like rice, corn, millet, yams, and potatoes in Nigeria. A review of literature related to the "role of agricultural development," in general, was also considered as well as "Nigeria's economic past and agricultural development.

The distance between Oklahoma State University and the Mwaghavul Chiefdom in Plateau State of Nigeria was too far to collect current related literature on agriculture from the

Plateau State. Time constraints and the postal service were the key obstacles, since it would take months to receive the information.

In Nigeria, it is generally known that the majority of the people live in small villages, mostly on family farms. The livelihood of these people could only improve through development of agricultural techniques and through community development programs. This is a result of the fact that these people are not willing to leave their inherited land areas to move into towns and cities.

In most developing countries in Africa, including Nigeria, agriculture needs to be developed in order to provide sufficient food necessary for the people.

The young generation in the developing countries should be taught the practical aspects of agriculture; for example, in how to plant crops, cultivate land either by manual hand labor or using machines, application of fertilizer, harvesting and storing products, selling products, how to castrate animals, feed them, and keep them. Such learned skills would go a long way towards making the young people self-reliant and competent in meeting their day-to-day challenges. Furthermore, governments of developing countries should set up agricultural experiment stations, to improve on livestock species and plants, through cross breeding and crossing plants by grafting and pollination (IBPGR, 1987).

In Plateau State Nigeria and Mwaghavul Chiefdom, in particular, land is owned by families. Some land is being used effectively for agriculture but there is some land still not being cultivated. The government should provide machines to farmers. This would encourage participation in land cultivation for more food production.

The truth is that without a sound and modern agriculture sector, all efforts geared towards industrialization are bound to be futile (Cope, R.W. 1981).

The single most important thing required to achieve set goals is a good relationship. Likewise, to solve problems no matter how complicated, a cordial relationship is necessary. The same thing applies to agricultural goals. This relationship required in the field of agriculture should exist between Agricultural Extension staff and farmers. Agriculture Extension is confronted with the task of assisting local

farmers to improve their farms, farming practices, and production, which in turn increases gross farm income (Eicher, C.K. 1988). Better programs are developed when Extension personnel work in conjunction with local people because their needs and interests are considered in the program development (Idachaba, S.F. 1990).

The training, experience and personality of an Extension worker have definite effects on the success of Extension programs. The training program should be designed to prepare the Extension worker to be a community organizer, adult educator and a student of human behavior in general (Fishel, W.L. 1988).

Agricultural Extension methods require special techniques in order to succeed since they deal with not only the productivity but also the social, cultural and economic aspects of rural life (AARC, 1984. p.16). The role of Extension officers is perceived as an adult educator who assists farmers in diagnosing their needs and plan a sequence of experiences to produce a desired outcome (6). It is suggested that the aim of Extension is to bring the farmer knowledge and help that will enable him to farm more efficiently and increase his income (Borg. W.R. and Gall, M.D.11993. p.68).

The value of trained personnel in agriculture for Nigeria is stressed. Nigeria will continue to bear the brunt of agricultural development program well into the 1990's. The truth of the matter is we just cannot train enough degree-holders in fields of agriculture to meet the needs of development (IBPGR, 1994 p.292). It was pointed out that assistance programs directed towards the agricultural sector must be concerned directly with education.

This study seeks to evaluate the Agricultural Extension staff perceptions concerning training needs in helping the Irish potato producers in Mwaghavul, plateau state, Nigeria.

II. MATERIALS AND METHODS

Location of the study area

The seven districts selected for this study are: Mongu, Mangun, Panyam, Ampang West, Kerang, Pushit, and Kombun among the whole Mwaghavul speaking people. Others like Chakfem, Mupun, Mushere, and Jipal were not included, although there are some similarities among all of these languages, because they are not under Mwaghavul Chiefdom.

Population of Studies

In the seven districts of the Mwaghavul Chiefdom, 10 farmers were chosen as representatives for the sample from each of the districts, so a total of 70 farmers were thus selected as respondents. The selection was based on the following criteria:

- The representatives from these areas were Irish potato producers.
- The respondents were age 25 and above.

- The respondents were Mwaghavul persons and living within the jurisdictions of the Mwaghavul Chiefdom.
- The respondents were recognized farmers and had often obtained at least ten sacks of Irish potatoes each harvesting period.

Development of the Survey Instrument

Two separate questionnaires were developed for the study in order to gather the required information to meet the purpose and objectives of the study. The author reviewed the literature closely related to the study to develop the questionnaire. The instruments were submitted to the staff in the Department of Agricultural Education, Oklahoma State University for review.

Collection of Data

The researcher instructed the distributors to distribute the questionnaires on Sundays at churches, since many farmers in the Mwaghavul land area are church attendants. They were also to distribute them on market days. The market days in Mwaghavul land districts are as follows: Tuesday for Mangun, Kombun, and Ampang West districts, Wednesday for Pushit, Friday for Mongu, Thursday for Panyam, and Monday for Kerang as of the time of data collection.

- The questionnaires were distributed between 9:30 and 11:00 a.m., both on market days and Sundays.
- Questionnaires meant for Agricultural Extension staff were distributed at any time on the weekdays when the ones for potato farmer were distributed.
- The Agricultural Extension staff completed their questionnaires with little or no assistance from the distributors. Most farmers (participants) had their questionnaires completed for them through interviews by the distributors because most of them hardly can read or write English.

Analysis of the Data

Data collected were analysed using descriptive statistics (frequency distributions, percentages, rank order, and calculated arithmetic means).

III. RESULTS AND DISCUSSIONS

Table 1 and 2 shows the Extension Staff Perceptions of Present and Future Training Needs of Potato Producers

The Extension staff chose five areas as "very important" but six others as "important," which would require training at present. As for the "future," the Extension staff unanimously declared all areas but three on the questionnaires to be "very important" for future training. A comparison of the Extension staff opinion indicated that while "storage facilities" is considered highest for training at present, "keeping of seedlings" takes the highest priority for future training by ranking.

In a comparison of present training needs as perceived by farmers with those perceived by Extension staff, Table 3 revealed that for the farmers, all nine areas, except seed variety selection, are "very important." Both farmers and

Extension staff chose "use of credit source," "fertilizer application," and "storage facilities" as "very important" areas for present training need. Both ranked "seed variety selection" as least for present training need.

Table 1: Summary of present training needs of needs of Irish potato farmers for selected production practices as perceived by agricultural extension’s personnel

ITEM OF TRAINING	Very important		Important		Some importance		Little importance		No Importance		Mean Response	Rank by Mean	Category
	N	%	N	%	N	%	N	N	N	%			
Potato plant production	6	85.71	-	-	-	-	1	4.29	-	-	3.57	2	VI
Fertilizer application	5	71.43	1	14.29	1	14.29	-	-	-	-	3.57	2	VI
Keeping seedlings	5	71.43	1	19.29	1	14.29	-	-	-	-	3.57	2	VI
Use of credit source	4	57.14	3	42.86	-	-	-	-	-	-	3.57	2	VI
Use of new equipment	5	71.43	-	-	-	-	2	28.57	-	-	3.14	8	I
Storage facilities	5	71.43	2	28.57	-	-	-	-	-	-	3.71	1	VI
Transportation of seedlings	2	28.57	4	57.14	1	14.29	-	-	-	-	3.14	8	I
Marketing information	2	28.57	5	71.43	-	-	-	-	-	-	3.29	7	I
Chemical weed control	4	57.14	2	28.57	1	14.29	-	-	-	-	3.43	6	I
Worm control	2	28.57	3	42.86	1	14.29	1	14.29	1	14.29	2.86	11	I
Selecting seed varieties	2	28.57	4	57.14	1	14.2	-	-	-	-	3.14	8	I
Values:	Very important – 4		Important - 3		Some important - 2		Little importance – 1		No Importance – 0				

Table 2: Summary of future training needs of needs of Irish potato farmers for selected production practices as perceived by agricultural extension’s personnel

ITEM OF TRAINING	RESPONSE AS TO TRAINING NEEDED														
	N	%	N	%	N	%	N	%	N	%	N	%			
Irish potato plant production	6	85.8	1	14.3	-	-	-	-	-	-	-	-	3.86	2	VI
Fertilizer application	5	71.4	1	14.3	1	14	-	-	-	-	-	-	3.57	5	VI
Keeping of seedling	7	100	-	-	-	-	-	-	-	-	-	-	4.00	1	VI
Use of credit source	5	71.4	1	14.3	1	14	-	-	-	-	-	-	3.57	5	VI
Use of new equipment	6	85.7	-	-	1	14	-	-	-	-	-	-	3.71	3	VI
Storage facilities	5	71.4	1	14.3	1	14	-	-	-	-	-	-	3.57	5	VI
Transportation of seedlings	5	71.4	1	14.3	1	14	-	-	-	-	-	-	3.57	5	VI
Marketing information	4	57.1	2	28.6	1	14	-	-	-	-	-	-	3.45	9	I
Chemical weed control	4	57.1	2	28.6	-	-	-	-	-	-	-	-	3.14	11	I
Worm control	5	71.4	1	14.3	-	-	1	14.3	-	-	-	-	3.45	9	I
Selecting seed varieties	5	71.4	2	28.6	-	-	-	-	-	-	-	-	3.71	3	VI

Values: Very important - 4 Important - 3 Some important - 2 Little important - 1 No important - 0

Table 3: Comparison of present training needs as perceived by farmers with those perceived by extension staff

Item of Training needed and /or problem area	Mean	Rank	Category	Mean	Rank	Category
Use of credit source	3.81	1	VI	3.57	2	VI
Use of new equipment	3.81	1	VI	3.14	5	I
Marketing information	3.73	5	VI	3.29	4	I
Fertilizer application	3.77	4	VI	3.57	2	VI
Seed variety selection	2.15	6	S	3.14	5	I
Storage facilities	3.81	1	VI	3.71	1	VI

Table 4, 5 and 6 revealed that Mangu potato producers do put into practice all the recommendations made by the Extension staff in regards to production practices. The second greatest use was by farmers at Ampang West, and use at those Kerang and Mangun tied for third. Use at Panyam and Pushit tied for fifth followed by use at Kombun.

In regards to the number of Extension staff visits to farmers, the study showed that farmers at Ampang West were visited most frequently, followed by farmers at Mangu, then a tie for visits to those at Kombun and Mangun, followed by Pushit. Then Panyam and Kerang farmers tied for last. The farmers at Ampang West confer most with the Extension staff. Panyam farmers confer least with the Extension staff.

The study also revealed that farmers at Ampang West' attended the most "Educational Meetings" arranged by the

Extension staff, followed by farmers at Mangu. The interesting aspect is that some farmers from all of the districts in the study attended the educational meetings.

The difference was only in the number and percentages.

As for the tendency of farmers to contact Extension staff, all the farmers except three agreed they do contact the Extension staff when faced with problems. However, most farmers felt that the approachability of the Extension staff was unfriendly.

The majority of the farmers seek assistance mostly from their friends who are potato farmers.

For the Extension staff three areas were "very important" and three other areas "important" for present training needs. The farmers felt five areas were "very important" and only one area was of "some importance."

Table 4: Summary of farmer's responses by villages as to frequency and use of production practices recommended by extension staff

Village	Very often		Often		Seldom		Never		Total		Mean	Rank
	N	%	N	%	N	%	N	%	N	%		
Kombun	0	0.00	1	25.00	3	75.00	–	–	4	100	2.26	7
Ampang West	4	66.67	2	33.33	–	–	–	–	6	100	3.67	2
Kerang	1	50.00	1	50.00	–	–	–	–	2	100	3.50	3
Mangun	2	50.00	2	50.00	–	–	–	–	4	100	3.50	3
Pushit	–	0.00	3	100.00	–	–	–	–	3	100	3.00	5
Mangun	5	100.00	–	0.00	–	–	–	–	5	100	4.00	1
Panyam	–	0.00	2	100.00	–	–	–	–	2	100	3.00	5
Total	12	46.15	11	42.30	3	11.75	–	–	26	100		

Table 5: Summary of farmer's responses as to the number of times agricultural extension staff make visits to their respective villages

NUMBER OF EXTENSION STAFF INVOLVED	MANGU		MANGUN		AMPANG WEST		PANYAM		KERANG		KOMBUN		PUSHIT		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
None	–	–	–	–	–	–	1	50.00	1	50.00	1	25.00	1	33.33	4	15.38
1 to 3	3	60.00	2	50.00	3	50.00	1	50.00	–	–	2	50.00	2	66.67	13	50.00
4 to 6	2	40.00	1	25.00	2	33.33	–	–	1	50.00	1	25.00	–	–	7	26.72
7 to 9	–	–	1	25.00	1	16.67	–	–	–	–	–	–	–	–	2	7.70
10 and above	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	5	100.00	4	100.00	6	100.00	2	100.00	2	100.00	4	100.00	3	100.00	26	100.00

Table 6: Summary of farmer's responses by district as to frequency with which they confer with extension staff

DISTRICTS	Less than once per week		Once per week		More than once per week		Total	
	N	%	N	%	N	%	N	%
Ampang West	5	83.30	1	16.70	–	–	6	100
Mangun	3	75.00	1	25.00	–	–	4	100
Panyam	2	100.00	–	0.00	–	–	2	100
Kerang	1	50.00	1	50.00	–	–	2	100
Kombun	3	75.00	1	25.00	–	–	4	100
Pushit	2	66.70	1	33.30	–	–	3	100
Mangu	3	60.00	2	40.00	–	–	5	100
Total	19	73.10	7	26.00	–	–	26	100

IV. CONCLUSION

Apart from "selecting new seed varieties" and "climatic control," the farmers felt it was very important to have help from the Extension staff in all other selected areas of production. All farmers showed they had problems requiring the Extension staff to help. It was, therefore, concluded that the farmers feel it is "important" to have help from the Extension staff. A specific area of concern by the potato producers was "watering during dry season gardening," since 92.31 percent of the farmers indicated they need help in this area.

Since all the Agricultural Extension staff indicated five areas were very important for present training and eight areas were very important for future training, it was concluded that they considered future training even more important than present. However an additional conclusion was that all areas were important for both present and future training. Also, since the Extension staff considered "storage facilities" as the most important area for the present training, and "keeping of seedlings" as most important for the future training. It was concluded that at present, more training is required for "storage facilities" while in the future, training is needed for "keeping of seedlings."

Since both the Irish potato producers and the Agricultural Extension staff chose "use of credit source," "fertilizer application" and "storage facilities" as "very important" areas for present training needs, it was concluded that training is required in each of these areas of agriculture for the present. It was also concluded that the producers and Extension staff considered training needs similarly.

The study showed that farmers from the selected districts put into practice recommendations made by the Agricultural Extension agents with Mangu farmers taking the lead, it was concluded that the Extension staff serving other districts need to step up their efforts to ensure that farmers see the need to put into practice what they recommended.

The study showed that farmers of Ampang West also received the most frequent visits by the Agricultural Extension staff. It was therefore concluded that the Extension staff serving in other districts need to increase their number of visits to farmers in their respective districts. Since the study indicated that farmers in Ampang West conferred most with Extension staff, it was concluded that the visits by the Extension staff encourage the farmers to seek their help.

As for attendance at educational meetings, the study revealed that farmers at Ampang West attended the most meetings. It was concluded that the Extension staff serving at Ampang West was actively encouraging farmers to attend educational meetings, and that there is a need for the other Extension to seek ways of encouraging farmers in their respective districts to attend educational meetings.

Since all farmers indicated that they contacted the Extension staff when faced with problems, and most of them pointed out

that the Extension staff response was unfriendly, it was concluded that the unfriendly response by the Extension staff to farmers might have been responsible for farmer's lack of attendance at educational meetings and the lack of use of the Extension staffs' recommendations.

Recommendations

Through the author's experiences as a Mwaghavul man, by analysis of the findings and results, and interpretation of the study, the following recommendations are put forward.

- The Plateau State Government needs to train more Agricultural Extension staff to meet the present educational needs of the farmers and to meet the future needs.
- The government needs to set up more Agricultural Research Centers and provide funds for Agricultural research in use of credit source, fertilizer application, storage facilities, and keeping of seedlings.
- The farmers need to be educated both formally and informally on modern methods of potato production in terms of mechanized farming by the Extension staff. The Extension staff should organize more meetings, but schedule them less than once a week to encourage attendance.
- More effective methods of marketing Irish potato products should be devised by the Mangu Local Government Area to facilitate quick and profitable selling of potato products
- This type of study should be conducted in other areas of the Plateau State of Nigeria and other areas of Nigeria in general, for farmers of crops like yams, peanuts, and cassava.

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