



**ASSESSMENT OF SOCIO-ECONOMIC CHARACTERISTIC AND INFORMATION
SOURCES AMONG FARMERS IN ADOPTION OF IMPROVED SESAME
PRODUCTION TECHNOLOGIES IN TAFAWA BALEWA LOCAL GOVERNMENT
AREA OF BAUCHI STATE, NIGERIA**

¹Ladan, Y. M., ²Rabiu, D. and ³Usman, I.

¹Federal Road Safety Commission RS 3.3 Taraba Sector Command Jalingo, Taraba State Nigeria

²Third National Fadama Development project, Taraba Agricultural Development Programme Jalingo, Taraba State
Nigeria

³ Department of Agricultural Economics, Federal University Wukari, Taraba State Nigeria

Corresponding Authors' Email: abuahmadjahuni@gmail.com

GSM:+2348034538906

ABSTRACT

The study was conducted to analyze the assessment of socioeconomic characteristics and information sources among farmers in the adoption of improved sesame production technologies in Tafawa Balewa Local Government Area of Bauchi state. Random sampling technique was used to generate data from 120 respondents. Data generated were subjected to descriptive statistics. The major findings revealed that 28.33% of the respondents were between 40 and 49 years old with a mean of 39 years, 85% were male out of which over 78% were married. About, 55% of the respondents had tertiary education with 41.66% having farming as their major occupation. Furthermore, 30.83% have a household size of 4 individuals or less, and 46.67% have farming experience of 11-20 years, On improved Sesame production technologies by the respondents. The major source of information to the respondents on improved Sesame production was media, specifically, radio and Television. The study recommends that; the media outlet most especially Radio and Television should more strategies and professionalism in all their agricultural programmers towards reaching the targeted audience And Credit facilities with favorable terms and conditions should be extended

Key Words: Adoption, Characteristic, Information, Production and Sources.

INTRODUCTION

Factors such as age, farming experience, training received, socio-economic status, cropping system, economic motivation, innovativeness, source of information and agents' credibility have been found to positively and significantly affect adoption (Garba, 2017). Agbamu and Orhorhoro (2007) found that when farmers spend more years in formal school, they become more proficient in reading and writing. Therefore, the adoption index is expected to be positively related to the level of formal education. Idrisa and Ogunbameru (2018) revealed that level of education was positively related to adoption of recommended practices. They maintained that the more knowledgeable the individual farmer is the more favorable attitude he/she has towards recommending technologies. Farm size is an important factor that can affect the adoption of a new technology

Idrisa and Ogunbameru (2001) identified the sources of information to farmers to include extension workers, fellow farmers, neighbors' and mediated information sources. The primary goals of these informants are to create awareness by diffusing among potential adopters useful and practical information on the innovation, and encourage its application. Ekon (2005) also affirmed that such technical information is very useful during the trial stage of adoption process and are capable of leading to adoption of agricultural innovations.



Extension contact is the frequency of the visits of the extension agent to the farmer and vice versa. Odoemenem and Obinne (2010) found a positive contribution of extension contact to adoption of agricultural technologies. This is because constant meeting between the extension personnel and the farmers would enlighten the latter and create awareness for the potential gains of improved agricultural innovation. The number of extension workers per unit of population influences extension delivery. A study conducted by Baidu-forson (1999) observed that adoption was higher for farmers having contact with extension agents than farmers who have never experienced any extensions contact.

MATERIALS AND METHODS

The Study Area

The study was carried out in Tafawa Balewa Local Government Area of Bauchi State. The local Government has a total of Two District (Bula and Lere) as well as eleven wards (Bununu (A), Bununu (B), Ball, Dull, Dajin, Kardam (A), Kardam (B), Lere North, Lere south, Wai and Tafshin). All the districts and wards were considered on the exercise as un bias representation. The list of the registered Sesame Farmers was obtained from the Local Government Area., from the list; a total of 120 Sesame Farmers were randomly selected proportioned to the registered Farmers.

RESULTS AND DISCUSSION

Socio-economic characteristics is an economic measure of a person and social position relative to age, sex, marital status, household size, educational status, farm size, and primary occupation, among others. The socio-economics characteristics considered include:

Age of the Respondents

Age is an important factor that determines the economic status of a population. It plays an important role in agricultural production. Garba (2017) reported that the age of the farmer is expected to affect his labour productivity and output. The distribution of respondents by age is presented in Table .1. The result revealed that 10.83% of the respondents were less than 30 years old, 24.16% falls within the age bracket of 30 and 39 years, while 28.33% fell within the age of 40 and 49 years. The table also revealed that 26.66% of the respondents were between the age of 50 and 59 years.

Only 5.83% and 4.16% falls within the age of 60 and above years respectively. This result suggests that sesame farmers in the study area were still in their active age of production. The result confirmed that youths were those involved in agricultural activities. This finding agrees with the result at Garba (2017) that majority (74.4%) sesame farmers in Jigawa State Nigeria were within the age of 20-55 years of age.

Table 1: Age Distribution of the Respondents

Age	Frequency	Percentage
<30	13	10.83
30-39	29	24.16
40-49	34	28.34
50-59	32	26.66
60-69	7	5.85
70 and above	5	4.16
Total	120	100.0



Sex distribution of respondents

The result in Table 2 shows the distribution of respondents based on their gender. It can be observed that majority (85.00%) of the respondents were male with females constituting relatively small percentage (15.00%). This is an indication that males dominated sesame production in the study area. This could be attributed to the fact that the males were the household heads and stronger in terms of labour and therefore capable of coping with the drudgery associated with farming activities. Cultural norms also give men more advantage to own lands. The result indicates that the sesame production in the study area was dominated by males although the female plays complementary roles.

Table 2: Sex Distribution of the Respondents

Sex	Frequency	Percentage
Male	102	85.00
Female	18	15.00
Total	120	100

Marital Status

Marital Status indicates weather one is married or not. Table 3 shows that majority (78.33%) of the respondents were married while 15% are single and 6.66% were widowed and divorced respectively. A greater percentage of the respondents were married. Married people go to the farm to ensure food security of the family. However, marital status in most cases is considered important in household decision making where married people have always succeed in decision making. This is expected because married is considered important to matured people in African setting (Adebayo *et al.*, 2010).

Table 3: Marital Status Distribution of the Respondents

Marital Status	Frequency	Percentage
Married	94	78.34
Single	18	15.00
Widowed	4	3.33
Divorced	4	3.33
Total	120	100

Educational Status of Respondents

Education is not only an important determinant of adoption of innovation but also an instrument for successful implementation of innovation for profitability. It was shown that farmers who have attained some levels of formal education are likely to raise their productivity. Education helps farmers to adopt innovation, information take decision and avoid trouble and mistakes etc. (Abdullahi *et al.*, 2015). The findings in Table 4 shows that majority (76.66%) of the respondents had one form of formal education or the other while (23.33%) had no formal education.

Table 4: Educational Distribution of Respondents

Educational level	Frequency	Percentage
No formal Education	28	23.33
Primary	2	1.67
Secondary	24	20.00
Tertiary	66	55.00
Total	120	100

This implies that adoption of agricultural production technologies could be faster and easier among the respondents and this confirms with the findings of Ernest (2015) who reported that the



more of education of a farmer the more likely it is for the farmers to adopt new innovation.

Farming Experience

Farming Experience is an important factor in ensuring farm productivity and adaption of innovation. Greater years of farming experience increases the probability of adoption Banire *et al.* (2008). Farmers who have more experience in farm operations generally attend higher level of adapting new technology, experience influences farmers' decision to use, discontinue use or reject farm innovations and change their attitude toward farm practices. The result in Table 5 shows the distribution of respondents based on their farming experience (years) in sesame production. It can be observed that, majority (51.66%) of the respondents had between 1 and 10 years of experience 30% had between 11 and 20 years of experience, and 6.60% had experienced at 21 and 30 years. It was further revealed that 8.63% of the respondents had between 31 and 40 years of experience while 3.33% had over 40 years' experience in sesame production. The mean farming experience was 11 years, which indicates that most of the sesame farmers in the study area have several years of experience whereby it will give them more advantage in handling most of the farming operations than those with a lesser experience.

Table 5: Farming Experience Distribution of Respondents

Farming Experience	Frequency	Percentage	Mean
1-10	42	35.00	11
11-20	56	46.67	
21-30	8	6.67	
31-40	10	8.33	
≥40	4	3.33	
Total	120	100	

Information and its Sources

Information and its source are vital in technology adoption an. Agriculture information that is received from experts (extension agents and media) will always facilitate the adoption of technologies (Garba, 2018). Result in Table 6 revealed that 10% of the respondents received their information through extension agents, only 01% received through non-governmental organization while the other 10% received information through research institutes. It also shows that 46.66% got their information from media which include television and Radio, while 16.60% got information through friends and relatives.

Table.6: Distribution of Respondents Based on Information Sources

Information source	Frequency	Percentage
Extension agent	12	10
NGOs	02	1.4
Research institute	12	10
Media (TV/Radio)	56	47
Fellow Sesame Farmers	18	15
Friends & relatives	20	16.6
Total	120	100

CONCLUSION AND RECOMMENDATIONS

The study concluded that most Sesame farmers in the study area were male who are in their active production age. The farmers have attained a reasonable level of formal education and are very much aware of the improved sesame production technologies. however. Media outlets especially Radio and television were the major sources of information on Sesame production



technologies to the respondents. It is therefore suggested that extension services should be strengthened for higher adoption of sesame technologies. This can only be achieved if government and relevant agencies employ and deploy more extension personnel to rural areas to assist farmers in solving complex farming operations problems associated with Sesame production. to the sesame farmers. In the study area. The media outlet most especially Radio and Television should more strategies and professionalism in all their agricultural programmers towards reaching the targeted audience And Credit facilities with favorable terms and conditions should be extended.

REFERENCES

- Abdullahi, A. Y., Akinola, M. O., Akpoko, J. G., Jamilu, A. A., Sambo, I. J., Issa, F. O. and Haruna, S. K. (2015). Determinants of Adoption of Recommended Sorghum (*Samsorg* 17) Production Practices by Farmers in Two Selected States of Nigeria. Book of Abstract of the 20th Annual National Conference of Agricultural Extension Society of Nigeria (AESON) held at the National Agricultural Extension Research and Liasion Services (NAERLS) ABU, Zariaon the 11th -15th May, Pp 42.
- Agbam, J. U. and Orhorhoro, W. C. (2007). Adoption of Agriculture Management Techniques in Delta State. *Journal of Agricultural Society of Nigeria (ASN)*, **3**(3):10 - 15.
- Baidu-porson, J. (1999). "Factors influencing adoption of Land-enhancing technology in Sahel: Lessons from a case study in Niger". *Agricultural economics*, **20**(3):231-239.
- Banerjee, B., Martin, S., Roberts, R., larking, S., Larson, J., Paxton, K., English, B., Marra, M., and Reeves, J. (2008). A Binary logit estimation of factors affecting adoption of GPS guidance system by cotton producers. *Journal of agricultural and applied economics*, **4**(1): 345-355.
- Ekong, E. E. (2005). **Introduction to Rural Sociology. An Introduction and Analysis of Rural Uyo, Nigeria**, Dove Educational Publishers, revised edition.
- Ernest, O. D. (2015). Socio-Economic Determinants of Intensity of Adoption of Cocoa Research Innovations in Ghana, *International Journal of African and Asian Studies*, **12**(5):2409-6938
- Garba, A. (2017). Analysis of the determination of adoption of improved sesame seed technology amongst farmers in Jigawa State Nigeria, Unpublished Ph.D. Thesis Abubakar Tafawa Balewa University, Bauchi, Nigeria
- Idrisa, Y. L. and Ogunbameru, B. O. (2008). Farmers' assessment of the Unified Agricultural Extension Service in Borno State, Nigeria, *Journal of Agricultural Extension*, **2**(13):106- 114.
- Kebede, W. M. and Tadesse, D. (2015). Determinants Affecting Adoption of Malt-barley Technology: Evidence from north Gondar Ethiopia. *Journal of Food Security*, **3**(3):75-81.
- Odemenem, U. and Obinne, C. P. O. (2010^a). Assessing the Factor Influencing the Utilization of Improved Cereal Crop Production Technologies by Small-Scale Farmers in Nigeria. *Indian Journal of Science and Technology*, **3**(9):1-7.
- Weldegiorges, Z. K. (2014). Benefits, Constraints and Adoption of Technologies Introduced Through the Eco-Farm Project in Ethiopia. Unpublished MSc Thesis submitted to Department of International Environment in the Faculty Social Sciences, Norwegian University of Life Science, Norway.
- Onu, D. O. (2006). Socio-economic Factors Influencing Farmers' Adoption of Alley Farming Technology under Intensified Agriculture in Imo State, Nigeria. *The Philippine Agricultural Scientist Journal*, **8**(2):45-52.