Journal of Asian Scientific Research
ISSN(e): 2223-1331/ISSN(p): 2226-5724
URL: www.aessweb.com

# PERCEPTION OF YOUTH IN SELECTED TERTIARY INSTITUTIONS ON AGRICULTURAL EDUCATION AS A MEANS OF ENSURING FOOD SECURITY IN OGUN STATE, NIGERIA

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## ABSTRACT

*Agriculture is central to improving food and nutrition security of any nation while this could be achieved through a better agricultural education and enlightenment of the youth. Thus, this study was carried out to assess perception of youth in Tertiary Institutions on Agricultural Education as a means of ensuring food security in Ogun State, Nigeria. Two hundred and fifty respondents were randomly selected as sample size for this study. Data collected were analyzed with descriptive statistics and chi-square. Results of the study showed that majority of the respondents were males (51.20%) with a mean age of 24.70 years and had a keen interest in acquiring knowledge and skills in Agriculture (71.20%). Furthermore, the results revealed that Agricultural Extension (100%), Crop Production and Protection (90.40%), Livestock Production (88.00%), Fishery and Aquaculture (87.20%), and Agricultural Economics (80.80%) were major scopes of Agricultural Education through which knowledge and skills were imparted on the Agricultural Students. However, effective Agricultural Education was hindered by inadequate resource personnel (71.20%), erratic electricity supply (66.40%), and poor financing of Agricultural Education (64.80%). Results of the study further indicated that a significant association existed between the scopes of agricultural education and perception of the respondents on agricultural education as a means of ensuring food security in the study area ($\chi^2$ = 8.98, df = 1). This study concluded that Agricultural Education contributed to skill acquisition in food production and nutritional security. Effective teaching and learning process should be supported by recruiting more resourceful personnel and providing essential Agricultural instructional materials to the institutions.*



**Keywords:** Youth, Perception, Tertiary, Institutions, Food security, Means.

**Received:** 21 May 2016/ **Revised:** 22 August 2016/ **Accepted:** 20 October 2016/ **Published:** 18 November 2016

## Contribution/ Originality

This paper's primary contribution is that agricultural education have potentials of solving problems of youth unemployment and food insecurity in Nigeria if it is given proper attention through sound education, skills acquisition, adequate funding and public enlightenment on the importance of agriculture by the government, donors private sector and extension service providers.



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DOI: 10.18488/journal.2/2016.6.11/2.11.148.157
*ISSN(e): 2223-1331/ISSN(p): 2226-5724*

## 1. INTRODUCTION

Food insecurity is alarming in Sub-Saharan African and Nigeria in particular due to ever-increasing population and poor education on agriculture. Commercialization of Agriculture in this region therefore requires proper and adequate education to increase food productivity, handling and quality. There is no doubt that agriculture is cardinal to improving food and nutrition security going by its potentials of providing food, income, raw materials, employment and supporting the nation economy [1]. But, inconsistence in government policy, poor infrastructure and under-education are major factors undermining agricultural development in Nigeria. These challenges are prominent, especially in rural areas where food insecurity, poverty and educational deprivation often create a vicious circle. Sustainable achievement cannot be realized by addressing one sector alone because these problems are inter-twinned. It is becoming important to use viable mechanism in which these inter-related problems can be jointly resolved. The focus should be on interventions that have the greatest effect on food security and poverty reduction. In the rural areas, basic education initiatives which use agricultural or environmental experience as a means of facilitating teaching and learning and making positive impact on food security and sustainable rural development are very important. The food system is an essential component of the human existence. There is need for overhauling of Nigeria agricultural sector because the era of over-dependent on crude oil is over going by the recent economic recession undergoing by the country. Before now Nigeria is a food secure nation, and a net food exporter. However, food imports are steadily increasing [2] while majority of Nigerians depend largely on subsistence agriculture, which is hardly sufficient to meet the food needs of the population. Facilities for storage, packaging, transportation and handling of agricultural produce are grossly lacking especially for highly perishable crops. This allows for considerable losses of agricultural produce [3] and food shortage. In order to move forward, the country must change the low productivity and poor handling of current agricultural practices in order to enhance its food security in line with number one goal of Millennium Development Goals (MDGs). According to Food and Agricultural Organization [4] food security of the people is achieved when they have physical, social, and economic access to sufficient, safe and nutritious food at all times to cater for their dietary needs and healthy living. Thus, there is an urgent need for the peoples' attention to be redirected towards increasing food productivity, self-reliant and sustainable livelihood which Agricultural Education provides. In the National Policy on Education it is documented that Agricultural Education gives training and impacts the necessary skills to individuals who shall be productive and self-reliant [5]. The fresh graduates from Agricultural discipline easily get themselves self-employed or employed by private establishments. Thus, the skills acquired through agriculture contribute to agricultural growth and development since it deals with improved production and handling practices which guarantee quality of output, high productivity and food security. It has also contributed to transfer of agricultural technology, dissemination of innovations, farmers' education and enlightenment in both the urban centres and rural areas. Unfortunately, most researches on food security have not looked into connection between agricultural education, perception of the youth and food security. In view of this foregoing, it is very important to assess the perception of youth in Tertiary Institutions on Agricultural Education as means of ensuring food security in Ogun State, Nigeria. The specific objectives of this study are to:

i. ascertain personal characteristics of the youth in the study area
ii. examine the scopes of Agricultural Education offered in the study area
iii. assess perception of the respondents on Agricultural Education in ensuring food security in the study area
iv. identify challenges undermining effective Agricultural Education in achieving its objectives in the study area

$H_{01}$: There is no significant association between the scopes of Agricultural Education offered and perception of the youth on Agricultural Education as a means of ensuring food security in the study area

## 2. REVIEW OF LITERATURE

### 2.1.0 Food security

The United Nations World Food Summit of 1996 defined food security as situation when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life [4]. Food security incorporates a measure of resilience to future disruption or unavailability of critical food supply due to various risk factors including droughts, fuel shortages and economic instability. The FAO identified the four pillars of food security as availability, access, utilization, and stability.

### 2.1.1 Food Availability

This is a consistent availability of food to the people. Food availability relates to the supply of food through production, distribution, and exchange [6]. Food production is determined by a variety of factors including land ownership and use; soil management; crop selection, breeding, and management; livestock breeding and management; and harvesting [7]. Crop production are affected by climate change (rainfall and temperatures) [6]. The use of land, water, and energy to grow food often competes with other uses, which also affect rate of food production [8].

*Experience on the field has shown that the land ownership practiced in Nigeria is land tenure system which discouraged large scale and mechanized farming. To worsen the situation, most of the lands are degraded due to consistent climate change and poor soil management. Hence farm outputs are continuously declining*.

### 2.1.2 Food Access

Sufficient resources are available to obtain appropriate foods for a nutritious diet. Food access is the affordability and allocation of food, as well as the preferences of individuals and households [6]. The UN Committee on Economic, Social, and Cultural Rights noted that the causes of hunger and malnutrition are often not a scarcity of food but an inability to access available food, usually due to poverty [9]. Poverty can limit access to food, and can also increase how vulnerable an individual or household is to food price spikes [10]. Access depends on whether the household has enough income to purchase food at prevailing prices or has sufficient land and other resources to grow its own food. Households with enough resources can overcome unstable harvests and local food shortages and maintain their access to food [11].

*In support of the* Ecker and Breisinger [10] *report on poverty, the level of impoverishment is very high among rural Nigerians. Most of the rural dwellers cannot afford three square meals daily*.

### 2.1.3 Food Use

Appropriate use based on knowledge of basic nutrition and care, as well as adequate water, sanitation and food preparation facilities. The final pillar of food security is food utilization, which refers to the metabolism of food by individuals [11]. Once food is obtained by a household, a variety of factors impact the quantity and quality of food that reaches members of the household. In order to achieve food security, the food ingested must be safe and must be enough to meet the physiological requirements of each individual [10]. Food safety impacts food utilization, Gregory, et al. [6] and can by impacted by the preparation, processing, and cooking of food in the community and household [7]. Nutritional values of the household determine food choice. Sanitation can also decrease the occurrence and spread of diseases that can affect food utilization [7]. Education about nutrition and food preparation can impact food utilization and improve this pillar of food security [11].

*In support of the view of* Tweeten [11] *it is becoming necessary that food and diet education should be extended to the rural areas where bulky of the foods in the markets are being produced. Africa should focus on education, research and infrastructure development. It is equally important to put in place measures to facilitate Agricultural Education throughout the Africa. As an intervention to food security, Agricultural Education must go beyond the*

*classroom teaching and learning to that of transfer of knowledge. In addition, Agricultural Education should open avenues to employment, thus acting as a safety net. It is time that Africans played an active role in research and development on matters that affect them. This includes food preservation at the village level, alternative medicine to make health more affordable to its people, creating more efficient agricultural extension, options for improving soil fertility, best approach to manage the different agricultural systems, and marketing strategies that would work best for a given group of farmers. Agricultural stakeholders should take necessary measure to modify available technology to suit community setting and not the other way round.*

### 2.1.4 Food Stability

Food stability refers to the ability to obtain food over time. According to FAO [7] food insecurity can be transitory, seasonal, or chronic. In transitory food insecurity, food may be unavailable during certain periods of time [10]. Instability in markets resulting in food-price spikes can cause transitory food insecurity. Other factors that can temporarily cause food insecurity are loss of employment or productivity, which can be caused by illness. Seasonal food insecurity can result from the irregular pattern of growing seasons in food production [7].

*Actually, the vagaries weather condition has been a major threat to agricultural production in Nigeria. It could be recalled that in 2013 large proportion of farm land and produce were lost to the devastating flooding that occurred in every part of the country*.

If one or more of these dimensions does not exist for a person or household (for example, not knowing when or what your next meal will be), it is termed food insecurity. Three levels of food security have been identified as:

i. **Secure**: It means having continual access to sufficient, safe and nutritious food
ii. **Insecure but without hunger**: It means that food is regularly consumed, but the food may be deficient in nutritional quality and occasional meal skipping
iii. **Insecure with hunger**: This means that sufficient food to meet nutritional needs or to avoid hunger is not readily available [12].

### 2.6. Description of Study Area

The study was carried out in Ogun State otherwise known as Gateway State in Nigeria. There are twenty Local Government Areas in the state but Odeda and Ijebu-Ode Local Government Areas were purposively selected based on the *a priori* information that Tertiary institutions are located in the areas. These two Local Government Areas have large numbers of rural dwellers who are into diverse farming activities to enhance their living. There are Colleges of Education in the two LGAs namely: Federal College of Education, Abeokuta (FCE) and Tai Solarin College of Education (TASCE), Omu. Agricultural Education is one of the courses offered in these institutions to train and empower youths for food production and self-reliant. These Colleges of Education provide three-year full-time and five-year sandwich courses respectively, leading to the award of the Nigeria Certificate in Education (NCE).

### 2.7. Sampling Techniques and Sample Size

The study population comprised students that are studying Agricultural Education in two selected Colleges of Education in Ogun State. That is, Federal College of Education, Osiele (FCE), Tai Solarin College of Education (TASCE), Omu. As at the time of collecting these data there are 156 final year students in Agricultural Education Department, FCE Abeokuta and 138 final year students in Agricultural Education Department, Tai Solarin College of Education, Omu. Simple random sampling technique was used to select 85% of the students (i.e. 133 from FCE and 117 from TASCE) to make up 250 respondents as sample size for this study. A well-structured questionnaire was used to solicit information from the students. The instrument was subjected to face validity by consulting experts in the fields of Agricultural Education, Economics, Extension and Rural Development. Items found ambiguous and lacking in clarity were immediately discarded. Test re-test was carried out at interval of two weeks with twenty

Agricultural students in Federal College of Agriculture, Moor plantation Apata, Ibadan to establish internal consistency of the instrument. Total scores were computed for each week and analyzed to get correlation coefficient (r) between two sets of scores. The reliability coefficient obtained was 0.87. The instrument was therefore accepted to be reliable for the data collection.

### 2.8. Measurement of Variables

The actual age of the respondents at the time of collecting these data was measured at ratio level while sex, family/guardian support, residence, sources of motivation, and scope of agricultural education were nominally measured. The perception of the respondents on agricultural education as a means of ensuring food security was measured using 5-point rating scale of Strongly Agree, Agree, Undecided, Disagree, and Strongly Disagree with corresponding scores of 5, 4, 3, 2 and 1 respectively. The aggregate scores of perception was calculated as $\sum(x1 + x2 + \ldots xn)$ while the mean score was obtained as $\sum(fx)/n$.

Where;

x1 …..xn = scores

n and f = number of respondents

The degree of severity was used to rank the various challenges to Agricultural Education in the selected tertiary institutions.

## 3. RESULTS AND DISCUSSION

### 3.1. Personal Characteristics of the Respondents

Results in Table 1 revealed that the mean age of the respondents was 24.70 years. About fifty percent (48.80%) of the respondents were between 20 - 24 years of age while 32.00% were between 25 – 29 years of age and 19.20% were above 30 years of age. This indicates that respondents are young and economically active. They have ability to learn new things and acquire skills. Oyediran and Omoare [13] reported in their findings that most young people in the world are in this age bracket and they are economically active part of the population. Many (58.40%) of the respondents were males while 41.60% of the respondents were females. These findings may not be unconnected with the nature of the Agricultural practices that requires more energetic and able individuals which encourage more young males to troop into Agricultural Education while females prefer processing and marketing activities.

**Table-1.**Distribution based on personal characteristics of the respondents (n = 250)

| Variables | Frequency | Percentage | Mean | Std. Deviation |
|---|---|---|---|---|
| **Age (years)** | | | | |
| 20 – 24 | 122 | 48.80 | 24.70 | 3.45 |
| 25 – 29 | 80 | 32.00 | | |
| 30 and above | 48 | 19.20 | | |
| **Sex** | | | | |
| Male | 146 | 58.40 | | |
| Female | 104 | 41.60 | | |
| **Family/Guardian support** | | | | |
| Yes | 218 | 87.20 | | |
| No | 32 | 12.80 | | |
| **Residence** | | | | |
| School hostel | 88 | 36.20 | | |
| Off-campus | 162 | 64.80 | | |
| **Sources of motivation for Agricultural Education** | | | | |
| Personal | 178 | 71.20 | | |
| Parents | 48 | 19.20 | | |
| School Guidance and Counseling | 16 | 6.40 | | |
| Frustration | 08 | 3.20 | | |

**Source:** Field survey, 2015

This proportion of female students involved in Agricultural Education will go a long way to assist in transferring of the knowledge and skills acquired to other rural farmers outside the school environment. Majority (87.20%) of the respondents were supported by their parents while 12.80% of the respondents personally responsible for their studies. The implication of this is that apart from parental support in terms of financing, the students have keen interest in learning and acquiring agricultural skills and knowledge for improved production and better living. The findings of this study also revealed that 36.20% of the respondents stayed in the school hostels while 64.80% resided outside the campus. The reason is that the hostel facilities in Nigeria tertiary institutions are very limited hence all the students cannot secure accommodation inside the institutions. It was found that 71.20% of the respondents had passion for agriculture and as such developed keen interest in studying Agriculture in tertiary institutions. Some (19.20%) of the respondents were persuaded by their parents while 6.40% of the respondents got inspiration for Agricultural Education through school guidance and counseling unit.

### 3.2. Scopes of Agricultural Education in Tertiary Institutions

From the results in Table 2, all (100%) the respondents indicated that Agricultural Extension and Rural Development is a major course offered in the institutions. This cannot be contested because Agricultural Extension provide technical support and diseminate information on improved techniques and technologies that promote better production, processing, packaging and marketing in the rural areas, that is the reason why they are called 'change agents'. Crop Production and Protection (90.40%), Livestock Production and Husbandry (88.0%), Fishery and Aquaculture (87.20%), Agricultural Economics (80.80%) were also offered in the institutions. Other courses in the curriculum of Agricultural Education are Agricultural Marketing (57.60%), Agricultural Engineering and Mechanization (74.40%), Post-harvest technology (58.40%), Diseases and Pest Management (68.00%) among others. All these courses are well-designed in such a way that it impacts both theoretical and practical knowledge and skills to the students. The findings corroborated the comments of Egbule [14] that Agricultural education impacts skills, values and required knowledge to the students in food production and postharvest handlings.

**Table-2.**Distribution based on scopes of Agricultural Education in selected Tertiary institutions (n = 250)

| S/N | Scopes of agricultural education | Yes (%) | No (%) |
|---|---|---|---|
| 1. | Agricultural Extension and Rural Development | 100.0 | 0.00 |
| 2. | Crop Production and Protection | 90.40 | 9.60 |
| 3. | Livestock Production and Husbandry | 88.00 | 12.00 |
| 4. | Fishery and Aquaculture | 87.20 | 12.80 |
| 5. | Agricultural Economics | 80.80 | 19.20 |
| 6. | Marketing in Agricultural | 57.60 | 42.40 |
| 7. | Agricultural Engineering and Mechanization | 74.40 | 25.60 |
| 8. | Food Crop Processing | 67.20 | 32.80 |
| 9. | Post-harvest Technology | 58.40 | 41.60 |
| 10. | Diseases and pest management | 68.00 | 32.00 |
| 11. | Animal Production and Health | 72.80 | 27.20 |
| 12. | Biotechnology | 48.00 | 52.00 |
| 13. | Organic farming | 51.20 | 48.80 |

**Source:** Field survey, 2015.

### 4.3. Perception of the Respondents on Agricultural Education in Ensuring Food Security

The results on students' perception as shown in Table 3 revealed that most of the respondents strongly agreed that Agricultural Education helps youth in acquiring knowledge and skills in farming ($\bar{X}$= 4.71) and it facilitates increased food production ($\bar{X}$= 4.09), and promotes youth development and empowerment ($\bar{X}$= 4.74) whereas some of the respondents strongly disagreed that it cannot provide jobs for rural people. The argument against the huge potentials of Agricultural Education is as a result of high rate of youth unemployment in Nigeria. It has been reported

that Nigeria is not preparing the youth for the challenges of the rapidly changing economy and food deficit through agricultural development [15]. Moreover, many of the respondents strongly agreed that efficient farm management and record keeping is possible ($\bar{X}$= 3.62), and that rural-urban migration will be reduced ($\bar{X}$= 3.85). This is very possible because record keeping will minimize losses and make agriculture more profitable and attractive to the youths thereby encouraging them to do farming and stay in the rural areas rather than going for scarce white collar job in urban centres. The implication of youth returning to the farms is that more food will be produced that will cater for diet needs of Nigerian citizenry. Similarly, majority of the respondents strongly agreed that innovation dissemination and adoption could only be successful through agricultural extension ($\bar{X}$= 3.94). This implies that through extension service support agricultural productivity will be achieved and young farmers will have courage to stay on the farms. Agricultural Extension is capable of repositioning Nigeria agriculture from traditional to a modernized and commercial farming where fresh, nourished and safe food will be produced abundantly while surplus will be processed, packaged, and stored for further uses. In addition, the respondents agreed that postharvest losses will be minimized through proper handling ($\bar{X}$= 4.36) and quality farm products will be achieved ($\bar{X}$= 4.60). Since modern methods of agricultural practices are parts of teaching in tertiary institutions, the skills acquired in postharvest technology will help to curb huge losses and poor pricing of agricultural produce. It will extend the shelf-life of agricultural commodities and add value. The respondents also indicated that fresh and quality agricultural products will be made available in the markets all year round ($\bar{X}$= 3.52). Increase in farmers' income ($\bar{X}$= 4.24), household nutrition and food security ($\bar{X}$= 4.46), and adult and mass literacy will be realized in the rural areas ($\bar{X}$= 4.47) through Agricultural Education.

**Table-3**. Perception of the respondents on Agricultural Education in ensuring food security (n = 250)

| S/N | Statement | Mean | Std. Dev. |
|---|---|---|---|
| 1. | Agricultural Education contributes to knowledge and skills acquisition of the youth in farming activities | 4.71 | 0.92 |
| 2. | Knowledge acquired may not be transferred to farmers in the rural areas* | 2.22 | 1.31 |
| 3. | It facilitates increased food production | 4.09 | 1.29 |
| 4. | It promotes youth development and empowerment | 4.74 | 0.51 |
| 6. | Efficient farm management and record keeping is accomplished | 3.62 | 1.89 |
| 7. | It reduces rural-urban migration of the youth | 3.85 | 1.41 |
| 8. | Dissemination of improved production practices through agricultural extension education is achieved | 3.94 | 1.44 |
| 9. | Postharvest losses are reduced through training on proper handling | 4.36 | 0.90 |
| 10. | It enhances quality farm products | 4.60 | 0.49 |
| 11. | Agricultural education is limited to class teaching and as such cannot lead to increased food productivity* | 4.50 | 0.55 |
| 12. | With knowledge of improved agricultural practices fresh and quality agricultural products will be made available in the markets all year round | 3.52 | 1.54 |
| 13. | It enhances better income for the farmers | 4.24 | 0.94 |
| 14. | Food and nutrition security of the rural households is achieved | 4.46 | 0.60 |
| 15. | Agricultural education facilitates adult and mass literacy in the rural areas | 4.47 | 0.62 |

**Source:** Field survey, 2015. *Negative statement

### 4.4. Major challenges to Agricultural Education

Agricultural Education in tertiary institutions in Nigeria is affected by series of problems among which are inadequate resource personnel which ranked 1st and epileptic power supply ranked 2nd. The available Lecturers are over-stretched with too much load of work which is seriously affecting the efficiency of Agricultural Education delivery in the institutions. Poor and irregular electricity supply is a national problem for the three decades; it affected teaching and the rate of skill acquisition in agriculture because many of the tools and machines in the laboratories are power driven. Poor funding of agricultural education ranked 3rd and it has created a serious wound in

agricultural development of the nation. Inadequate agricultural instructional materials and support for agricultural researches and findings were ranked as 4th and 5th major constraints respectively. Inadequate instructional materials has been attributed to the problem of low quality training among vocational students in Nigeria [16]. Also, the time allocating for the practical class is too short and it constituted the 6th major impediment to the transfer of agricultural knowledge and skills to the students. The focus should be shifted from concentrating on theoretical aspects to practical that facilitate skills acquisition and self-empowerment. Similarly, respondents identified inadequate functional processing facilities (7th), poor maintenance of infrastructure (8th) and poor learning environment (9th) as serious challenges inhibiting effective learning of Agriculture in the study area. The implication of this is that the students cannot study well and acquire skills under poor learning environment and it will defintely limit the skill acquisition which is the pillar of Agricultural Education in Nigeria tertiary institutions. Consequently, the problems will have a multiply effect on food production, handling and quality thereby contributing to poor productivity, shortage of food supply and food insecurity.

**Table-4.**Distribution based on major challenges to agricultural education (n = 250)

| S/N | Major challenges | Extremely serious | Moderately serious | Less serious | Rank |
|---|---|---|---|---|---|
| 1. | Inadequate resource personnel | 71.20 | 22.40 | 6.40 | 1st |
| 2. | Inadequate functional processing facilities | 53.60 | 40.00 | 6.40 | 7th |
| 3. | Erratic power supply | 66.40 | 22.40 | 11.20 | 2nd |
| 4. | Poor maintenance of infrastructure | 51.20 | 39.20 | 9.60 | 8th |
| 5. | Too short time allocating for the practical session | 55.20 | 28.80 | 16.00 | 6th |
| 6. | Inadequate agricultural instructional materials | 60.80 | 26.40 | 12.80 | 4th |
| 7. | Poor funding of agricultural education | 64.80 | 28.80 | 6.40 | 3rd |
| 8. | Inadequate support for agricultural researches and findings | 57.00 | 36.00 | 6.40 | 5th |
| 9. | Poor learning environment | 44.00 | 32.00 | 24.00 | 9th |

**Source:** Field survey, 2015.

### 4.5. Hypothesis Testing

Test of association between the scope of agricultural education and perception of the youth on agricultural education as means of ensuring food security.

*$H_{01}$: There is no significant association between the scope of agricultural education and perception of the youth on agricultural education as a means of ensuring food security in the study area*. The result indicated that a significant association existed between Agricultural Extension and Rural Development *($\chi^2$ = 8.98, df = 1)*, Crop production and Protection ($\chi^2$ = 16.07, df = 1), Fishery and Aquaculture ($\chi^2$ = 1.25, df = 1), Agricultural Economics ($\chi^2$ = 5.23, df = 1), Food Crop Processing ($\chi^2$ = 17.51, df = 1), Postharvest Technology ($\chi^2$ = 11.99, df = 1) and perception of the respondents on agricultural education at $p < 0.05$ level of significance. It implies that scopes of agriculture have influence on the training being offered to the students in ensuring food security. However, some courses such as Livestock Production ($\chi^2$ = 0.91, df = 1), Marketing ($\chi^2$ = 0.25, df = 1), Agricultural Engineering and Mechanization ($\chi^2$ = 2.94, df = 1) were not significant to perception of the respondents on agricultural education at $p < 0.05$ level of significance. The non-significant relationship with some courses can be adduced to non-offering of these courses or inability of the institutions to effectively impart it on to the students due to challenges in education sector. The null hypothesis is rejected while the alternate ($H_1$) hypothesis is accepted.

## 5. CONCLUSION

The study concludes that major courses taught in the institutions such as Agriculture Extension and Rural Development, Crop Production and Protection, Livestock production, Fishery and Aquaculture, Agricultural

Economics, Agricultural Marketing, Agricultural Engineering and Mechanization, Postharvest technology, and Diseases and Pest Management have great influence in reducing food insecurity. The respondents strongly agreed that Agricultural Education helps youth in acquiring knowledge and skills in farming which in turn facilitate increased food production and productivity.

**Table-5.** Association between the scope of agricultural education and perception of the respondents on agricultural education as a means of ensuring food security

| Scope of agricultural education | $\chi^2$ | df | p-value | Decision |
|---|---|---|---|---|
| Agricultural Extension and Rural Development | 8.98 | 1 | 0.01 | S |
| Crop Production and Protection | 16.07 | 1 | 0.00 | S |
| Livestock Production and Husbandry | 0.91 | 1 | 0.34 | NS |
| Fishery and Aquaculture | 1.25 | 1 | 0.02 | NS |
| Agricultural Economics | 5.23 | 1 | 0.02 | S |
| Marketing in Agriculture | 0.25 | 1 | 0.62 | NS |
| Agricultural Engineering and Mechanization | 2.94 | 1 | 0.09 | NS |
| Food Crop Processing | 17.51 | 1 | 0.00 | S |
| Post-harvest Technology | 11.99 | 1 | 0.01 | S |
| Diseases and pest management | 1.15 | 1 | 0.28 | NS |
| Animal Production and Health | 2.67 | 1 | 0.10 | NS |
| Biotechnology | 0.01 | 1 | 0.91 | NS |
| Organic farming | 0.01 | 1 | 0.94 | NS |

**Source:** Field survey, 2015. S – Significant at $p \leq 0.05$, NS – Not Significant at $p \leq 0.05$. df – degree of freedom

Household nutrition and food security and adult and mass literacy will be realized in the rural areas through Agricultural Education. There was also a significant association between the scopes of Agricultural education and perception of the youth on agricultural education as a means of ensuring food security in the study area. Meanwhile, the objectives of Agricultural Education were constrained by shortage of staff, poor electricity supply and inadequate financing of Agricultural Education in the tertiary institutions.

## 6. RECOMMENDATIONS

It is based on these findings that the following recommendations are highlighted to improve the Agricultural Education for better and sustainable food production and nutrition security in the study area:

1. Government should promote Agricultural Education through adequate funding since Agricultural Education will accelerate knowledge and skill acquisition of the youth and it will have multiply effect on agricultural productivity in the study area.
2. Agricultural researches and findings that can lead to increased food production and food security should be accorded a priority in the study area.
3. Nigeria government in collaboration with the international donors should make learning environment conducive by providing more infrastructures that will support fast learning and skill acquisition in the study area.

Funding : This study received no specific financial support.
Competing Interests: The authors declare that they have no competing interests.
Contributors/Acknowledgement: My appreciation goes to Dr. (Mrs.) F. S. Solaja (my supervisor/HOD) and all lecturers that taught us the Pedagogy of Education during Professional Diploma in Education (PDE) at Federal College of Education, Abeokuta. I equally appreciate my wife, Mrs. Oyediran Bukola, and my entire family for their support. My deep appreciation goes to Dr. (Mrs.) Ayodeji Omoare that introduced PDE programme to me in 2013. Special thanks to my friends during the programme, Aako Funke, Omobo Funmi, Imole Ayodeji, Agbelusi Olumide, and Taiwo Aremu (Asipa).

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