

**FARM PRACTICAL TRAINING PROGRAMME FOR AGRICULTURAL STUDENTS: CASE STUDY OF PIONEER STUDENTS, KWARA STATE UNIVERSITY, MALETE, NIGERIA**

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**ABSTRACT**

In Nigeria, the curriculum of agriculture at undergraduate level was re-structured by introducing farm practical training (FPT) for students. The study examined students' orientation, skill acquisition, level of satisfaction and change in attitude towards farming, constraints and ways of improving FPT. Data were collected from students with structured questionnaire. Frequency distribution and mean were used to analyze data collected. Results revealed that students' orientation about FPT was inadequate, students' farming skills acquisition were tremendously improved and students developed positive attitude towards agriculture as a means of livelihood. The perceived constraints and mean score included: untimely payment of allowances (4.4), inadequate monitoring (3.2) and unfavorable sharing formula of farm proceeds (3.1). It was concluded that addressing the skills acquisition of undergraduates, through the FPT, would satisfy youth employability in extension organizations and efficient provision of extension services to farmers. This would permit agricultural development to flourish in a sustainable manner.

**Keywords:** Skill acquisitions, increased employability, change of attitude, constraints, sustainable agricultural development.

## INTRODUCTION

The attitude of youth towards studying agriculture, arising from the stick-and-hoe type of farming predominant in Nigeria, has led to depletion of active labour force in the sector and a recipe for perpetual food insecurity in the country. In order to complement theoretical classroom teaching with experiential learning and enhance youth retention in agriculture, the National University Commission, in 1981, restructured the curriculum of agriculture at undergraduate level by introducing farm practical training (FPT) for agricultural students. If we must achieve agricultural development in terms of reducing poverty, and improving on the prevailing food insecurity in a sustainable manner, we must begin to break new grounds, explore new opportunities and create innovative strategies. These, hopefully will reverse the prevailing poverty situation, youth unemployment, change the negative attitude of youth towards farming as means of livelihood and inject qualified human resources into the extension service delivery of the nation. Knowledge and skills of agricultural producers must keep increasing and changing. Rapidly advancing agricultural production technology requires continuing education of producers regardless of their level of education. FPT has the potential to sustain the enthusiasm of the students in agriculture if properly implemented. There is no other sector that has as much potential to drive poverty reduction initiatives, unemployment and jump-start economic development like agriculture. Various conditions need to be put in place for agriculture to flourish and its potential maximized on a sustainable basis especially effective and efficient provision of agricultural services which include availability of sound technical advice and generation of new productive-enhancing technologies.

This braced up the Federal, State governments and her agencies in Nigeria to introduce policies and programmes that would enhance the quality of agricultural graduates from the nation's universities with the expectation that the vibrant youth would replace the aged farmers. One of such initiatives is Farm Practical Training (FPT). This is an attempt to improve the technical know-how of the nation's university graduates of agriculture. Ogunbameru (1986) described this as internship or the process of gaining knowledge and practical skill through observation and by doing. This is a form of experiential learning.

Experiential learning is an old concept of learning and according to Kolb and Kolb (2005), theory must be reinforced with practice and practices need sound theory to guide their conduct. Lewis and Williams (1994) observed that, in higher institutions, experiential learning is conducted in the form of field based experiences or by incorporating field experiences into institutional programmes. Farm Practical Training addresses the shortcomings in curricular of agricultural graduates, enabling them to acquire knowledge and practical skills needed to become proficient in agriculture. In India, the World Bank (1995) observes that there is little emphasis in the curriculum on preparing the agricultural graduate for better career in agriculture or agribusiness outside government jobs. Fapojuwo *et al.* (2011) report that most agricultural graduates in Nigeria lack the knowledge and skills required to be self employed and work in a rapidly changing environment. In Ghana, Okorley (2001) reports that only 20% of the final year university agricultural students surveyed indicate a definite willingness to pursue agribusiness as a self-employment venture. He also reports that some heads of department of Faculties of Agriculture in Ghana are of the opinion that the current curricula of teaching agriculture in the universities are not adequate enough to address training needs for self-employment in agribusiness. Oloruntoba (2008) reports that Farm Year Training at Federal University of Agriculture, Abeokuta, Nigeria presents a unique opportunity to reinforce the practical application of all the theoretical inputs that have gone into her products provided the programme was judiciously

implemented by committed officials. Edozien (2002) reports that Nigeria's future lies in the participation of agricultural students and youth in the agricultural sector of the economy.

Agricultural transformation will not take place in developing countries such as Nigeria unless there is improved technical knowledge and willingness of youth to be in the sector. Today about 800 million people are food insecure globally (Apolo, 2001). The 2020 Vision Initiative has vigorously pushed for sustainable food for all by the year 2020. Thus, if agricultural production is to be sustainable, youth should be empowered with appropriate skills, knowledge and change in attitude towards farming so that young graduates will replace the aged farmers in agriculture. This will enhance agricultural productivity and food security for all in the immediate, medium and long terms on a sustainable basis. This informed the National University Commission's (NUC) policy which makes FPT mandatory for agricultural undergraduates in the fourth year of the five-year degree programme. In the medium or long run, this measure would enable us to create a propitious environment for producing adequate food in a sustainable manner.

In Kwara State University, Malete, just like any other university in Nigeria, a five year Bachelor of Agriculture (B. Agric.) programme has replaced the erstwhile Bachelor of Science in Agriculture (B.Sc. Agric.) programme of only four years duration. The Bachelor of Agric. programme allowed for one extra academic session of direct farm internship designed to improve the competence of the students. Essentially, the programme was designed to widen the scope of knowledge to practical and mechanized agriculture. Furthermore, the FPT offered great opportunity for the students to pursue their chosen discipline of agriculture (livestock, fisheries, crop, extension and agricultural economics) among others.

The scheme was segmented into two phases. In the first phase, the students were exposed to farm practical combined with theories at the university teaching and research farm for a period of six months. In the second phase, the students were deployed to commercial private agricultural organizations relevant to areas of choice, specialization/discipline of the students. These include Leventis Holdings, Ilesha, Osun state; AOF-7 agro ventures, Ikorodu, Lagos state and Happy Days Farm, Oyo, Oyo state. The students worked in these commercial farms for another period of six months. The authorities of the university and the agricultural farms monitored the students and presented confidential reports on the performance of each student.

Hitherto, agriculture is presumed to entail tremendous drudgery which scared away youth from the profession on account that it is a dirty job with low economic returns. Consequently, agriculture remains unattractive to the youth leading to their movement to other sectors of the economy to grab better life. Many resource poor farmers depend entirely on family labour. However, the young and vibrant youths that are supposed to constitute labour force have migrated to the urban centers. If they find agriculture to be profitable, it can serve as a source of gainful employment for the youth. This will go a long way to stem the tide of rural urban migration amongst youth in search of greener pasture in the cities. Major concerns in many developing countries are sustainable development and high rate of agricultural graduate unemployment as governments can no longer employ all graduates as a result of economic recession in many countries. Therefore, if properly implemented, FPT is capable of re-orienting the attitude of young graduates of agriculture towards farming as a profession, making them

become employer of labour rather than job seeker at the completion of their various courses in agriculture. It is against this backdrop that the study assessed Farm Practical Training Programme undertaken by the pioneering agricultural students of Kwara State University, Malete, Nigeria. The specific objectives of the study were to:

- a. describe the demographic characteristics of the agricultural students,
- b. investigate most preferred course of study in the university by the students,
- c. examine planning resources and orientating the students for the scheme,
- d. determine the extent of acquisition of farming skills by students,
- e. investigate perceived constraints of Farm Practical Training (FPT) implementation and
- f. identify perceived ways of improving the FPT implementation

## **MATERIALS AND METHODS**

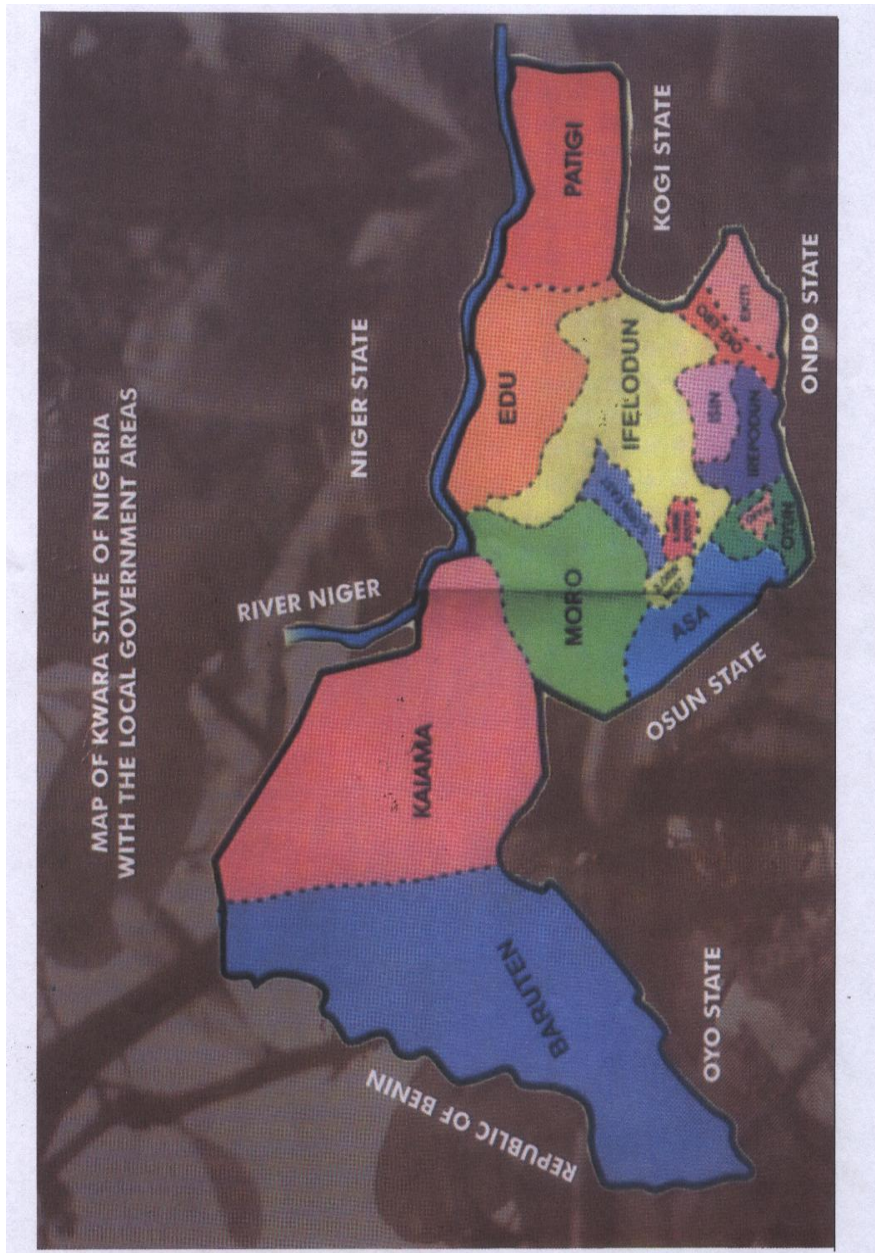
The study was carried out in Kwara State University (KWASU), Malete, Nigeria. The University was established in 2009, about five (5) years ago. The university is located in Moro Local Government Area of Kwara State (Fig. 1). Kwara State was created in 1967. It is one of the 36 states of Nigeria. It falls within the North Latitudes  $11^{\circ} 21'$  and  $11^{\circ} 45'$ . It is sandwiched between longitudes  $2^{\circ} 45'$  and  $6^{\circ} 40'$  East of Greenwich Meridian (i.e. Longitude '0'). The State has 16 Local Government Areas. These in Alphabetical order are Asa, Baruten, Edu, Ekiti, Ifelodun, Ilorin East, Ilorin South, Ilorin West, Irepodun, Isin, Kaiama, Moro, Oke-Ero, Offa, Oyun, Patigi Local Government Areas. The state has boundaries in the south with Oyo, Ekiti and Osun State. It is bounded in the West by Benin Republic while in the North and the East; it is bounded by River Niger, and Kogi State respectively. The pioneering agricultural students of KWASU were used as subjects of the study to experiment the implementation of farm practical training (FPT) during the 2012/2013 academic session. It is desirable to examine the strength and weaknesses of the implementation with a view to ascertaining the achievements of the goals of the scheme. This was therefore a case study involving all the 13 immediate past 400 level agricultural science students (now in 500 level) of the university. As a result of the small size, all the students were purposively selected for the case study as respondents. Structured interview schedule was used to elicit primary data from the students. Section A of the instrument was used to elicit data on demographic profile of the students such age, gender, place of domicile, course of study (discipline) most preferred to undertake in the university and involvement of nucleus and extended family members in agricultural enterprises. Section B was used to elicit information on planning resources, orientation of students and satisfaction rating of Farm Practical Training (FPT) while section C sought to determine the extent of acquisition of farming skills through FPT by students and constraints and ways of improving FPT implementation.

The students were asked to indicate their agreement or disagreement with the statements designed to measure the variables of the objectives of the study. These include skills acquired, level of satisfaction, constraints and ways of improving the FPT programme. In order to determine the constraints to FPT for example, possible constraining elements were listed for the students to tick on a 5-point Likert type scale ranging from strongly disagreed (SD) = 1point, disagreed (D) = 2 points, undecided (UD) = 3points, agreed (A) = 4 points and strongly agreed (SA) = 5 points. For instance, for a constraining element like 'untimely payment of SIWES allowance', the total score was calculated by multiplying 'strongly agreed' (5 points) with the frequency plus 'agreed' (4) multiplied by the frequency plus 'undecided' (3) multiplied by the frequency plus 'disagreed' (2) multiplied by the frequency plus 'strongly disagreed' (1) multiplied by the frequency. The addition was

then divided by the total number of respondents to obtain the mean score for each element. The mean score was compared with the highest score (5) on the Likert scale. A mean score equal or greater than 2.5 was rated as 'important constraint' to be addressed while a mean score of less or than 2.5 was considered as a 'weak constraint'. The mean score gave an insight into the level of significance or strength of the constraining element and prioritization of solutions to be proffered.

Perceived level of farming skills' acquisition was measured by asking students to state their agreement or disagreement on levels of skills acquisition in 20 agricultural tasks. To interpret skills acquisition levels, a mean score above 2.5 was used to show that students had acquired skill on the task in question while a mean below 2.5 was used to denote no substantial skill had been acquired. This approach was used to determine level of satisfaction, ways of improving the FPT, acquisition of skills by the respondents and ways of improving the scheme. The data collected were analyzed using frequency counts, percentages and means statistical tools. Perceived level of farming skills' acquisition was measured by asking students to state their agreement or disagreement on levels of skills acquisition in 20 agricultural tasks. To interpret levels of skill acquisition a mean score that greater or equal to 2.5 was to denote that students had acquired skills on the tasks in question while a mean score below 2.5 was used to denote no substantial skills had been acquired. Perceived level of farming skills' acquisition was measured by asking students to state their agreement or disagreement on levels of skills acquisition in 20 agricultural tasks. To interpret skills acquisition levels, a mean score above 2.5 was used to show that students had acquired skill on the task in question while a mean below 2.5 was used to denote no substantial skill had been acquired.

Fig. 1: Map of Kwara State Nigeria, Showing the Sixteen Local Government



## **RESULTS AND DISCUSSION**

### **Demographic characteristics of agricultural students**

The result of the study (Table 1) showed that many (61.5 %) of the students were in the age bracket of 21-25 with a mean of 22 years. Thus, the respondents could be categorized as adolescents. At this age, students were expected to be able to decide on what to do and how to go about achieving their desires. About half (46.2 %) and (53.8 %) of the students were males and females respectively. It could be inferred from the result that both male and female were given equal opportunity to acquire agricultural education in this tertiary institution. All the students were single while 76.9 %, 7.7 % and 15.4 % of the students were of urban, peri-urban and rural origin respectively. Most urban dwellers have limited opportunity to practice modern agriculture due to high demand of surrounding land for building of institutions, residential quarters, industries, recreation and health facilities among others. In addition more than half (53.8 %) and close to half (46.1 %) of the students' fathers and mothers respectively were civil servant while 15.4 % and 7.7 % respectively were agriculturists. In the same vein 38.8 %, 7.6 % and 30.8 % of the respondents were first, second and third child of their parents respectively. The findings of the study also revealed that among the first child of the family, only 7.6 %, 7.6 % and 46.2 % had acquired P.hd, M.Sc. and B.Sc. degree certificate respectively. Similarly, it was about half (53.8 %) of second child in the family that acquired university education. As a result, most of the students, by virtue of areas of domicile and family education background had limited exposure to agricultural production and its economic benefits. Therefore, it is not out of proportion to infer that FPT, having exposed the students to improved skills and knowledge and change of attitude, there may be a shift in paradigm towards accepting agriculture as a means of livelihood in future. The implication is that these energetic, vibrant youth would power agricultural production in Nigeria on a sustainable basis. The students' assessment of the scheme is desirable and would be reliable on account of their adolescent status.

Table 1: Personal characteristics of agricultural students, Kwara State University, Nigeria.

Characteristics	Frequency	Percentage
<b>Age (Years)</b>		
16-20	4	30.8
21-25	8	61.5
26 and above	1	7.7
Mean	22	
Standard Deviation	2.79	
<b>Sex</b>		
Male	6	46.2
Female	7	53.8
<b>Marital status</b>		
Single	13	100.0
<b>Place of Domicile</b>		
Rural	2	15.4
Peri-urban	1	7.7
Urban	10	76.9
<b>Father's occupation</b>		
Civil servant	7	53.8
Contractor	4	30.8
Agriculturist	2	15.4
<b>Mother's occupation</b>		
Civil servant	6	46.2
Trading	5	38.6
Agriculturist	1	7.6
Medical personnel	1	7.6
<b>Position in the family</b>		
1 <sup>st</sup> Child	5	38.6
2 <sup>nd</sup>	1	7.6
3 <sup>rd</sup>	4	30.8
4 <sup>th</sup>	2	15.4
6 <sup>th</sup>	1	7.6
<b>1<sup>st</sup> Child education qualification</b>		
Ph.D	1	7.6
M.Sc.	1	7.6
B.sc.	6	46.2
Others (HND and below)	5	38.6
<b>2<sup>nd</sup> Child education qualification</b>		
B.Sc.	6	46.2
B.Ed	1	7.6
HND/OND	4	30.8
SSCE	2	15.4
<b>3<sup>rd</sup> Child education qualification</b>		
B. Sc	1	7.6
B. Ed	1	7.6
B. Agric	2	15.4
OND	4	30.8
SSCE	5	38.6

Source: Field survey, 2013



### **Involvement of nucleus and extended family members in agricultural enterprises**

The findings of the case study (Table 2) indicated that majority (76.9 %) and (92.3 %) of the students reported that none of the nucleus and extended family members, respectively, were involved in any form of agricultural enterprises. Although 69.3 % of the students reported that agriculture was one of the key subjects that were studied at secondary school level, this did not inspire or encourage them enough to study agriculture at the university. A plausible reason may be that the desire of the parents and the students' family members influence their choice of course of study in the university. However, with the introduction of FPT into the curriculum of agriculture in Nigeria's universities, students would be exposed to modern agricultural practices and "see" by themselves the beauty and economic benefits of agriculture. These adolescents would be stimulated to join public or private extension organizations that offer advisory services to small scale farmers on agricultural innovations. This in turn has the advantage of increasing agricultural production on a sustainable basis.

Table 2: Involvement of family members in agricultural enterprises

Characteristics	Frequency	Percentage
Members of my nucleus family were involved in one form of agricultural enterprises		
Yes	3	23.1
No	10	76.9
Members of my extended family were involved in one form of agricultural enterprises		
Yes	1	7.7
No	12	92.3
Agriculture is one of my key subjects at secondary school level		
Yes	9	69.3
No	4	30.7
Knowledge of agriculture at secondary school level stimulated my interest in agriculture		
Yes	2	15.4
No	11	84.6

Source: Field survey, 2013

### **Most preferred course of study**

Table 3 summarized the choice or preferred course of study in the university by the students. The result indicated that 46.1% and 23.1% of the students preferred to study medicine and micro-biology respectively as first choice. Similarly, 30.7 % of the students preferred medicine as second choice while 15.4 % of the students preferred chemistry, biochemistry, computer engineering and microbiology as second choice. Only a small proportion (7.7 %) indicated agriculture as second choice. This established the fact that agriculture was never the preferred choice of majority of the students. Therefore, it may be assumed that external factors such as parents, family members or peers might have influenced the students to accept agriculture as a last resort to pursue a university education, after all efforts to gain admission for first and second choice yielded no positive results. This agreed with the findings Jeffrey *et al.* (2004) that families, parents and guardians in particular, play a significant role in the occupational aspirations and career goal development of their children. Without parental approval or support, students and young adults are often reluctant to pursue—or even explore—diverse career possibilities. Similarly, Yanyan *et al.* (2011) reported a reciprocal relationship between parents' expectations and adolescents expectations (-that is, they have mutual influence on each other) and academic achievement.

Table 3: Most preferred course of study

Characteristics	Frequency	Percentage
<b>1<sup>st</sup> Choice</b>		
Medicine	6	46.1
Agriculture	1	7.7
Micro-Biology	3	23.1
Pharmacy	1	7.7
Biochemistry	1	7.7
Nursing	1	7.7
<b>2<sup>nd</sup> Choice</b>		
Medicine	4	30.7
Agriculture	1	7.7
Chemistry	2	15.4
Biochemistry	2	15.4
Computer engineering	2	15.4
Microbiology	2	15.4

Source: Field survey, 2013

### **Planning resources and orientation of students for Farm Practical Training**

The scheduled time for the implementation of FPT by National University Commission (NUC) was at the end of the 4<sup>th</sup> year of a 5-year Bachelor of Agriculture (B. Agric.) degree programme. The findings of the case study (Table 4) showed that 69.3% the students considered the timing as appropriate for the programme. At about this period the students had covered a high proportion of the theoretical works of the curriculum for the award of university degree. FPT, therefore gave the students the opportunity to apply the theoretical knowledge on the field. However, more than half (53.8%) and 23.1% of the students disagreed and strongly disagreed respectively that tools provided by the university were adequate. It was also revealed that many (61.6%) of the respondents agreed that one year duration was considered optimum for the scheme for the students to be sufficiently proficient in their respective areas of specialization. Majority (84.6%) of the students admitted that orientation of the students about the programme allayed the fears of the students about scheme. Orientation was particularly important more so that most of the students were of urban origin with little or no past experience in farming. In addition agriculture was not a priority course of study in the university for the students.

Table 4: Planning resources and orientation of students for Farm Practical Training

Characteristics	SA	A	U	D	SD	Mean
The timing of the programme was appropriate for experiential learning	9(6.3)	4(30.7)				4.69
Adequate working tools were made available by the university		2(15.4)	1(7.7)	7(53.8)	3(23.1)	2.2
One year farm practical training is sufficient to be competent in my area of specialization	4(30.7)	8(61.6)	1(7.7)			4.31
Orientation of students diffused the severity of problems envisaged about the programme		11(84.6)	1(7.7)	1(7.7)		3.76
Monitoring and evaluation (M&E) by the university was excellent	1(7.7)	10(76.9)	2(15.4)			3.69
M&E in the organization where I served was excellent	6(46.1)	1(7.7)	1(7.7)			4.15

Source: Field survey, 2013

### Satisfaction rating of FPT by students

Table 5 summarized the elements used for the measurement of satisfaction rating by the students. The elements along with mean scores of satisfaction rating in descending order of magnitude were depicted as follows: The students were satisfied that, the farms selected for the FPT were capable of impacting on the farming skills of the students with a mean score of 4.5, that is a satisfaction index of 90 % (4.5 divided by 5 (highest score on the Likert scale)). This showed that 90 % of the students were satisfied with the farms selected by the university for the FPT. Similarly, majority (81.6 %) of the students reported that FPT was a good platform to learn about preferred aspects of farming or areas of specialization through work related practical experiences. In the same vein, 61.5 % of the respondents (with a mean score of 4.2 and satisfaction index of 84 %) agreed that the scheme provided the opportunity for the students to apply agricultural theories to farming outside university environment. In addition, more than half (69.2 %) of the respondents were convinced that agriculture can be pursued as a means of livelihood contrary to negative impression peddled about agriculture in Nigeria.

Therefore, the combination of various extension methods incorporated into the FPT through which the students saw, heard and put into use (practice) the classroom theoretical knowledge, enhanced the skills and change the negative impression of students about agriculture. Consequently, on completion of degree programme, 61.5 % of the respondents preferred to work in agricultural related institutions to provide required man power in the agricultural sector. This showed that in the shortest future, the problem of inadequate trained extension personnel at local level (Agbamu, 2005) would be solved. The replacement of aged farmers with vibrant elites is another added advantage. In the same vein, more than half (61.5 %) of the students were willing to embark upon agricultural ventures in future on the premise that it is a profitable venture. The participation of these erudite, energetic and venturesome youth in agriculture would increase food production while unemployment of graduates of agriculture would become thing of the past. The grand satisfaction means rating of all the elements was 4.2 and satisfaction index of 84 % indicated that the satisfaction level of the students about FPT could be

described as excellent. The expression of overwhelming satisfaction about FPT by students showed that skills' acquisition has taken place and this could enhance students' employability. This negates the finding of Lindley (1999) which indicates that one of the results of isolation of agricultural education in developing countries is the decline in teaching and learning standards. Traditional lecture-based delivery system provides limited opportunity to acquire prerequisite skills, experience, knowledge and attitudinal change to explore careers in agriculture. As a result graduates do not have the required competence and confidence to be self-employed and therefore, always looking for public service job that is currently difficult to secure.

Table 5: Satisfaction rating of FPT by students

Characteristics	SA	A	U	D	SD	Mean
The farm where I served was capable of developing my skills	6(46.2)	7(53.85)				4.5
The training provided opportunity to learn about aspects of farming of my choice through work related practical experience	4(30.8)	7(53.8)	1(7.7)	1(7.7)		4.2
I was able to apply agricultural theories to outside university Environment	4(30.8)	8(61.5)	1(7.7)			4.2
I was convinced that agriculture can be pursued as a means of livelihood contrary to my initial impression, as a result of field exposure during FPT	3(23.1)	9(69.2)	1(7.7)			4.2
On completion degree programme I would prefer to work in agricultural related institutions to provide required man power in the agricultural sector	8(61.5)	3(23.1)	2(15.4)			4.5
On completion of my degree programme I would prefer to start my own agricultural ventures as I am convinced that it is a profitable venture	8(61.5)	3(23.1)	2(15.4)			3.7
Average grand means score						4.2

Source: Field survey, 2013

### Determination of extent of acquisition of farming skills from FPT by students

Table 7 summarized the list of 20 agricultural tasks on which students' levels of skills acquisition were examined. The result of the case study showed that the students acquired skills in 16 agricultural tasks. Some of the skills and mean score in descending order of magnitude were depicted below: Calculation of specific amount of fertilizer required for different arable crops per unit area of land (4.2), planning and implementation of extension farm and home visit for technological dissemination (4.2), gained insight into investment opportunity in agricultural sector (4.2), operating and maintaining a tractor (4.0), designing and construction of livestock housing for poultry, pig, cattle and rabbit (3.8), acquired skill in organic farming (3.7). The students were unable to be proficient in planning and implementation of land preparation procedure for

different crops (2.2), acquisition of capacities to engage in bee keeping (2.1) and planning, usage of survey equipment (2.1) and acquisition of skills to organize farmers' field day (1.6) among others. Therefore in agreement with the opinion of Adedoyin (2003) that agricultural curricula, content, and teaching strategies should be capable of building the capacity of students to such a level of excellence that will make them job creator and productive members of the work force. The FPT has, to some extent enhanced the skills of the students for a future sustainable agricultural development and employment. It behoves the university to ensure that the students were deployed to organizations with optimum human and material resources that will guarantee acquisition of skills by the students.

Table 6: Determination of extent of acquisition of farming skills from FPT by students

Characteristics		SA	A	U	D	SD	Mean
1. Calibrated planters and seeders for various arable crops	3(23.1)	7(53.8)	1(7.7)	2(15.4)		3.7	
2. Operating and maintaining a tractor		2(15.4)	10(76.9)		1(7.7)		4.0
3. Accessing the operation and establishment of irrigation scheme	1(7.7)	3(23.1)	2(15.4)	7(53.8)		2.3	
4. Acquired skill in organic farming		3(23.1)	6(46.1)	1(7.7)	3(23.1)		3.7
5. Control of erosion on the farm		3(23.1)	6(46.1)	1(7.7)	3(23.1)		4.2
6. Designing and construction of livestock housing (poultry, pig, cattle, rabbit)		2(15.4)	8(61.5)	1(7.7)	2(15.4)		3.8
7. Fumigation of livestock installation (livestock houses, hatchery)	2(15.4)	6(46.1)		2(15.4)	3(23.1)	3.2	
8. Control of external parasites		4(30.8)	6(46.1)		2(15.4)		3.8
9. Integrated pest control practices on the farmers' field	3(23.1)	9(69.2)	1(7.7)			4.2	
10. Calculation of specific amount of fertilizer required for different arable crops per unit area of land	3(23.1)	9(69.2)	1(7.7)			4.2	
11. Planning and implementation of land preparation procedure for different crops			3(23.1)		6(46.1)	4(30.8)	2.2
12. Acquisition of capacities to engage in bee keeping		3(23.1)	1(7.7)	3(46.1)	6(46.1)	2.1	
13. Planning and usage of survey equipment	1(7.7)	2(15.4)	2(15.4)		8(61.5)	2.1	
14. Formulation of livestock feeds		6(46.1)	6(46.1)		1(7.7)		4.2
15. Planning and implementation of extension farm and home visit for technological dissemination		5(38.5)	6(46.1)	2(15.4)			4.2
16. Planning and implementation of technological demonstrations for farmers' groups		2(15.4)	8(61.5)		3(23.1)		3.7
17. Acquisition of skills to organize farmers' field day			2(15.4)	4(30.8)	7(53.8)	1.6	
18. Keeping of farm records	1(7.7)	8(61.8)	2(15.4)			3.3	
19. Computation of benefit/cost ratio for agric ventures	2(15.4)	4(30.8)		4(30.8)	3(23.1)	2.8	
20. Gained insight into investment opportunity in agricultural sector	7(53.8)	5(38.5)	1(7.7)			4.2	

Source: Field survey, 2013

## **Perceived constraints of Farm Practical Training implementation**

As shown in Table 7, students listed the major constraints of the FPT to include untimely payment of SIWES allowance with a mean score of 4.3. The payment of the stipend is important to the students for meeting physiological (feeding) and security (housing) needs. The two needs were rated high, given prominent position and described as basic needs in the Maslow Hierarchy Theory of needs. Unless these basic needs were fulfilled it would be difficult for the students to meet higher needs such as self actualization which in this situation is the sound academic achievement in agriculture. If the basic needs were not met, the implication is that performance of the students in the FPT activities would be inefficient. Other constraints in descending order of magnitude and means score include difficulty in combining farm work with lectures (4.3), interaction with small scale farmers to appreciate their problems was inadequate (4.2), machines (planters, harvesters, tractors) were in short supply (3.9), sharing formula of proceed was unfavorable to the student (3.9), number of excursions to best farmers farms were inadequate (3.8), inadequate field monitoring and evaluation (3.07), inadequate storage facilities (2.5) a high proportion of student were not committed to Farm Practical Training (1.9), inadequate processing facilities (1.7), involvement of use of local farm tools (1.5), inadequate transportation arrangement to convey students to farms and back to classes (1.5).

These constraints should be given priority attention so that the students would be motivated to participate in the programme in future. Lectures should be held at the farm site. This would eliminate the problem of transportation and the accompanied overheads. Similarly, proceeds (revenue) and produce should be accessed by the students at a percentage to be worked out by the authority with the involvement of the students. This would eliminate pilfering and guarantee reliability of data on yields of crops and animals. Mechanization of agricultural practices assures elimination of drudgery which has always been bone of contention by the students.

Table 7: Perceived constraints of Farm Practical Training implementation

Characteristics	SA	A	U	D	SD	Mean
Untimely payment of SIWES allowance	6(46.1)	5(38.5)	2(15.4)			4.30
Involvement of use of local farm tools			3(23.1)	7(53.8)	3(23.1)	1.50
Inadequate transportation arrangement to convey students to farms and back to classes			2(15.4)	2(15.4)	9(69.2)	1.50
Machines (planters, harvesters, tractors) were in short supply	5(38.5)	6(46.1)	2(15.4)			3.92
Number of excursions to best farmers farms were inadequate	4(30.8)	6(46.1)	3(23.1)			3.84
Inadequate field monitoring and evaluation	3(23.1)	2(15.4)	1(7.7)	7(53.8)		3.07
A high proportion of student were not committed to Farm Practical Training	1(7.7)		1(7.7)	6(46.1)	5(38.3)	1.92
Difficulty in combining farm work with lectures	4(30.8)	8(61.5)	1(7.7)	6(46.1)	5(38.5)	4.2
Inadequate processing facilities	3(23.1)	1(7.7)	1(7.7)			1.69
Inadequate storage facilities	2(1.4)	3(23.1)	4(30.8)	2(15.4)	5(38.5)	2.5
Sharing formula of proceed was unfavorable to the student	5(38.5)	6(46.1)		1(7.7)	1(7.7)	3.92
Interaction with small scale farmers to appreciate their problems was inadequate	6(4.1)	4(30.8)	3(23.1)			4.23

Source: Field survey, 2013

### Perceived ways of improving Farm Practical Training implementation

The students (53.8 %) of the university were of the view that proper orientation of students prior to commencement of FPT would allay the fears of students about the scheme (Table 8). Timely provision of farm machines with a mean score 4.2, adequate farm input necessary for modernization of agriculture (4.1). If the enthusiasm of the students in agriculture were to be sustained, farm machines have to be provided to remove drudgery and other tendencies that would involve the use of manual labour. The inadequate supply of optimum farm inputs confirmed the situation reported by Ingawa (2005) that farmers in Nigeria applied about 10 kilograms of fertilizer per hectare. Similarly Fajana (2002) reports that quality seeds are in short supply in Nigeria. If food security and yield of arable crops are to be sustainable, assorted farms inputs that are capable of accelerating yield of crops should be made available as at when due. Optimum yield implies optimum income and general well being of the citizenry. Welfare of students involved in the scheme should be given adequate priority.

Table 8: Perceived ways of improving Farm Practical Training implementation

Characteristics	SA	A	U	D	SD	Mean
Proper orientation of students prior to commencement of FPT would allay the fears of students about the scheme	7(53.8)	5(38.5)		1(7.7)		4.4
Timely provision of farm machines and equipment necessary for modernization of agriculture	5(38.5)	7(53.8)	1(7.7)			4.2
Adequate farm input necessary for modernization of agriculture	4(30.8)	7(53.8)	1(7.7)	1(7.7)		4.1
Welfare of students involved in the scheme should be given adequate Priority	7(53.8)	5(38.5)	1(7.7)			4.5

Source: Field survey, 2013

## CONCLUSION

Based on the empirical evidences, the FPT stands to improve on the skills of agricultural graduates of Kwara State University. Since FPT is nationally accepted as a policy to be implemented by all the universities offering agriculture in Nigeria, the skills acquired by the students would translate into increased agricultural productivity as a result of quality of extension services from public or private extension agencies that may engage the services of these graduates in future. Equally, the graduates showed enthusiasm to go into active farming on completion of their course as a means of livelihood. These vibrant and energetic adolescents participation in farming would serve as a replacement to aged farmers and enhance agricultural production in Nigeria on a sustainable basis.

## RECOMMENDATION

The constraints, especially orientation and welfare package for students during FPT implementation should be addressed if the enthusiasm showed by the students on agriculture were to be sustained and impacted on sustainable agricultural development in Kwara State University's immediate surrounding communities, Kwara State and Nigeria at large.

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