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Field Management Competencies Required For Effective Management Of Floriculture Farm By Agricultural Education Students Of Universities For Job Creation In South East Of Nigeria

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ABSTRACT

The general purpose of the study was to determine field management competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria. Seven research questions and seven null hypotheses guided the study. The study was carried out in South East states of Nigeria using a descriptive survey research design. The population for the study was 473, comprising 269 registered floricultural farmers (floriculturists) 33 Agricultural Education Lecturers from four Universities offering Agricultural Education in the South-East as Progrmme to students and 171 extension officers in the five states of South-East. There was no sampling because the population was manageable. The instrument used for data collection was a 29-item structured questionnaire developed by the researcher. The instrument was structured in a four-point rating scale for data collection. The instrument was face validated by three experts. Two of the experts were from Agricultural Education Programme in Department of Technology and Vocational Education and one in Measurement and Evaluation option of Department of Mathematics and Computer Education, all in the Faculty of Education, Enugu State University of Science and Technology (ESUT), Enugu. Cronbach Alpha was used to determine the reliability coefficient of the eight sections of the instrument and they ranged from .76 to .82 while the reliability coefficient of the whole instrument gave a value of .76. Out of 473 copies of the questionnaire distributed 449 copies were properly filled, returned and used for data analysis, thus representing 94.93% return rate. Mean with standard deviation was used to answer the research questions and Analysis of Variance (ANOVA) was used to test the null hypotheses at .05 level of significance at 446 degree of freedom. The result revealed that all the items under the manuring, wedding and pruning competencies were highly required for effective management of floriculture (flower production) by agricultural education students of universities for job creation in South East of Nigeria. The study therefore concluded that the identified competencies would be used to improve the teaching-learning process and competency development among the students in universities. Based on the findings, the followings recommendations among others were made, farmers (florists) should adopt and practice the identified competencies for effective management of floriculture (flower production).

Keywords: Competencies, Field Management, Effective Management, Floriculture, Agricultural Education, Job Creation**.**

INTRODUCTION

Agriculture has been providing opportunities for achieving sustainable development as well as job creation. Agriculture, being one of the primary sector of the economy contributes a significant amount to

the Gross Domestic Products (GDP) of the nation. Orikpe (2014) pointed out that all the branches of agriculture provide job opportunities for the increasing population. Among the branches are the animal science, agricultural economics, agricultural engineering, agronomy, horticulture among others. Horticulture deals with the cultivation of fruits, vegetables and ornamental crops. Okeke (2011) stated that horticulture is a branch of agriculture that involves the cultivation, processing and sales of fruits, vegetables, ornamental plants/flowers as well as additional services. Okeke further stressed that horticulture has many branches in which floriculture or flower farming is found.

Floriculture or flower farming is a discipline in horticulture which is concerned with the cultivation of flowering plants/ornamental plants for gardens and for floristry (creating flower arrangement). Smith (2013) opined that floriculture refers to farming, plant care, propagation and cultivation with one goal in mind, the maximum production of flower buds and flowers. The development through plants breeding of new varieties is a major occupation of floriculturists. It is pertinent to note that growers who focus on floriculture also generally experiment with creating new strains development. It is varieties of improving bud and flower development in floriculture business which forms the attraction in flower business. Floriculture is the entire gardening spectrum that is geared towards understanding and improving, all aspects of bud and flower creation, including indoor lighting, grow room requirement, greenhouse needs, plant nutrition, irrigation, pest management and breeding new cultivars/strains. The goal of floriculturist is always to improve the plant so that it yields larger buds, more abundant buds and have optimal flowering times.

Floricultural farm requires certain competencies for it to provide the farmer with the desired output. Competencies according to Mbah (2012) are set of defined behaviours that provide a structural guide for the identification, evaluation, performance and development of specific job or tasks. Competence is the ability of an individual to do a job properly. Ismail and Mohammed (2015) stressed that competency is the combination of observable and measurable knowledge, skills and abilities as well as personal attributes that contributes to enhanced employee performance which ultimately result in organizational success. The competency required for effective management of floricultural farm for sustainability covers knowledge of flower and other ornamentals, planting spacing, pruning, ideal flower harvest time frame and post-harvest chores such as storage and packaging of buds, flower heads and other parts of the plants (Okeke, 2018). Okeke noted that floriculturists need to gain skills in planning and marketing in order to achieve the objective of establishing farm.

The understanding of the skills and knowledge needed to produce and sell to the customers determines the success of the floriculturist. Young floriculturists usually center their goals around the plant health, branching, growth size, bud formation, flower harvest and bud yield with less attention on managing the flower to the deserving customers. A floriculturist is a person trained with the skills and knowledge of growing and selling of flowers. It is imperative to note that floriculture careers start with growers, who must be proficient in knowing precise harvest times. Smith (2013) observed that flower growing techniques vary, depending on the plant and climate. Jobs in this industry include field work for crops grown outside and sheltered culture for crops grown in greenhouses and high tunnels or hoop houses. In some cases, grower hire horticulturists to propagate plants in house and others purchase liners, whips or tissues-cultured plants, which they pay workers to put in containers or plant in field. Acquiring these competencies helps in the establishments and effective management of floricultural farm.

Establishment of floricultural farm is the action of getting the appropriate flowers and employing human and every necessary technique required to produce and sell to the customers. Onoh (2011) opined that establishing a business may not be the problem of graduates but its management. According to Onoh establishment of any venture entails using available human and material resources to organize and bring a system or an enterprise into existence. As certain competencies are required to establishment a business, it also require some organizational and leadership ability to effectively manage the established enterprise for effective performance.

Effective management of floricultural farm requires that the farmer need to possess the managerial competencies to control human and material resources. Mbah and Onoh (2016) hinted that the

establishment of successful venture requires managerial competencies like planning, organizing controlling, coordinating and directing for the venture to survive the wind of the labour markets. In the tertiary institution students are trained to acquire the managerial competencies in order to perform in their respective discipline. Agricultural education students are trained to be gainfully employed in different agricultural fields. Aneke (2014) opined that agricultural education programme in the universities are designed to equip the students with skills and knowledge to harness opportunities in the various branches of agriculture. On the contrary, research findings by Okeke (2017) indicated that students of agricultural education do not possess the competencies to become self-employed and equally create jobs. Based on this imbalance, Udeke (2014) recommended that the competency-based research need to be conducted for the practitioners in various field of floriculture to identify the competencies required for job creation. Floriculture as one of the fields in horticulture a branch of agriculture will equip the students with these skills. Hence, Smith (2013) outlined that the competencies for successful floricultural business need to cover the theoretical knowledge, planning, pre-planting, planting, field management, harvesting and entrepreneurship/marketing competencies. The study focused on the field management competencies for job cretion of the youth.

Field management is concerned with the skill in manuring/fertilization, thinning, weed control, disease and pest control etc. Most flowers prefer some nutrients–rich and well-drained soil with appropriate manure. Manuring of flower plants in one of the field management competencies which is very necessary in ensuring its growth and high yield. Manuring is a process of adding organic matter, mostly derived from animal faeces except in the case of green manure, which can be used as organic fertilizer in flower farming and other agricultural activities (Idan, Prasad & Saravanan, 2014). Manure improves the physical structure and stability of soils particularly degraded soil particles. Florists are required to apply manure the flowering plants by selecting the type of organic and inorganic manure to be used, using animal waste, preparing of compost etc. Manuring would enhance growth of flowers and the florist are required to prune the flower to optimize its bloom.

In addition to manuring competencies is the pruning competency. The goal of pruning may include to shape, form, correct or control growth, prevent disease or damage, promote health, control capacity and vigor and provide clearance for electrical assets. Smith (2013) defined pruning as a horticultural practice involve in selective removal of certain parts of a plant, such as branches, buds or roots. Pruning is a horticultural and silvi-cultural practice involving the selective removal of certain parts of a plant, such as branches, buds, or roots (Okeke, 2018). Reasons to prune plants include deadwood removal, shaping (by controlling or redirecting growth), improving or sustaining health, reducing risk from falling branches, preparing nursery specimens for transplanting, and both harvesting and increasing the yield or quality of flowers and fruits. There is need to prune flowers as this would help: to control the size and shape the plants, to optimize the blooms, and to remove dead or diseased portions. Deadheading, for example, is the practice of pruning flowers after they have faded out of bloom. In some cases, dead wood is pruned away for safety reasons and also assist in harvesting of the flowering plant.

Some of these field management competencies are necessary for effective managements of floricultural business for job creation. These competencies discussed seem not to be fully understood as most of the agricultural education students after graduation find it difficult to engage themselves gainfully in the job market. Agricultural Education students are recipients of agricultural education programme who by training and learning are required to acquire the needed competencies in floriculture. The agricultural education programme is expected to impart the competencies needed in all areas of agriculture in order to enable the students diversify and identify opportunity thereof for self and paid employment. In tertiary institution, students are trained to acquire competencies for general progress in the work environment, but Agricultural education students are expected to acquire competencies for performance in much specific agricultural area including floriculture. According to Aneke (2014) Agricultural Education is a tertiary institution programme designed to equip the student with skills and knowledge to harness opportunities in the various branches of agriculture. The graduates of agricultural education are the students admitted into the programme and have been trained on the principle and practice involved in agricultural and other

farming activities with the methodology of imparting such to others (Baliyan, 2012). It means that at the completion of their programme, they are required to possess the needed competencies to perform in challenging agricultural work environment. Research findings according to Okeke (2017) indicated that graduates of agricultural education do not possess the deserving competencies to create job and become self-employed in the society despite the numerous areas and opportunities in agriculture such as in floriculture. It therefore depicts that agricultural education students need to be well trained by their lecturers in various competencies required for specific areas, hence the need to identify floriculture competencies.

Agricultural Education lecturers are well trained professional teachers of Agric Education who are competent in teaching all the components that make up Agricultural Education programme in university. Agricultural Education courses must be handled by well trained and motivated persons with academic and professional competences which will match the Agriculture industry and pedagogical expectations (Aneke, 2014). Agricultural Education Lecturers are educators that train their students to solve farming problem, plan for future growth, and strategize how to teach and run an agro-business efficiently and effectively. Agricultural Education lecturers are required to expose their students to the competencies which they need to function effectively on graduation.

Identification of these competencies ought to address some challenges faced by the florist and equally develop manual/programmes that will be used for training and retraining of interested people in floricultural business. To ascertain the needed competencies, the florist in the field would be of significant importance as their experience directly or indirectly influence performance in the business. Having the competencies would increase job creation and economic potentials of the florist in their floriculture business. A florist is a trained and experienced professional that plant, nurture and market flowers. Experience of florist and extension workers is usually important in the management of floricultural farm as it is crucial in the accomplishments of a task as may be required in the farm. The extension agents according to Klein and Zaid (2016) inform and facilitate the adoption and understanding of improved farming system through awareness creation, acquiring knowledge and skills, dissemination of information and providing training that eventually aid in sustainable or in the sustainability of agricultural activities in South East. Accessibility of florist to extension services therefore creates the platform for acquisition of relevant information that promotes sustainable floriculture farm in South East. South East is one of the geo-political zones in Nigeria. The South-East zone of Nigeria has been identified with rapid economic growth and development (Okeke, 2018). This development has increase the demand for flower but the supply seems not to be commensurate with the demand in South-East. It is against this background that the need arose to determine the competencies required for effective management of floriculture (flowers production) by agricultural education students of universities for job creation in South East States of Nigeria.

Statement of the Problem

The increasing rate of seeking for non-existing white-collar jobs in Nigeria and more specifically in South East can be controlled by training the students in needs areas of the society. This will enable them to gain the needed competences required and contribute to economic development for building sustainable society. Mbah (2012) noted that one major problem of youth unemployment is that job seekers do not acquire the competencies to perform the job task as may be needed by the employer of labour. The tasks in flower production is not excluded. This means that there is gap in the training provided to students as most of them cannot become gainfully employed or economically independent, hence the need to determine the competencies for flower planting to equip them for sustainable living.

The researcher is worried on this issue as the agricultural education students are equally affected by lack of job on graduation with its resultant effects, where there are opportunities in floriculture yet to be harnessed. This condition needs to be addressed to enable the students to create jobs and contribute economically to the society. This therefore calls for competency based education in specific areas such as floriculture for the students to become competent in specific jobs tasks in floriculture and other agricultural areas. Consequently, the study seeks to identify the competencies for effective management

of floriculture business in order to address the challenges of unemployment and job creation faced by the students on graduation. The problem of this study was what are the competencies required for effective management of floriculture (flower production) by agricultural education students of universities for job creation in South East States of Nigeria.

Purpose of the Study

The main purpose of this study was to determine the field management competencies required for effective management of floriculture (flower production) by agricultural education students of universities for job creation in South East of Nigeria. Specifically, the study sought to determine the:

1. Manuring competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria
2. wedding competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South of Nigeria
3. pruning competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria

Research Questions

The following research questions guided the study;

1. What are the anuring competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria?
2. What are the wedding competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South of Nigeria?
3. What are the pruning competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria?

Hypothesis

The following null hypothesis guided the study;

Ho_1 A significant difference does not exist among the mean scores of extension workers, Agricultural Education Lecturers and florists on the field management competencies (manuring, wedding and pruning competencies) required for effective management of floriculture by farm agricultural education students of universities for job creation in South East of Nigeria.

METHODS

This study adopted a survey research design. According to Nworgu (2015) survey research design is one in which a group of people or items are studied by collecting and analyzing data from only a few of them to represent the entire group. This design was adopted due to the responses sought for. The area of the study was South East states of Nigeria. The population for the study was 473, comprising 269 registered floricultural farmers (floriculturists) 33 Agricultural Education Lecturers from four Universities offering Agricultural Education in the South-East as Programme to students and 171 extension officers in the five states of South-East. There was no sampling because the population was manageable. The instrument used for data collection was a 29-item structured questionnaire developed by the researcher. The instrument was structured in a four-point rating scale for data collection. The instrument was structured in four point response option of Very Highly Required (VHR), Highly Required (HR), Slightly Required (SR) and Not Required (NR) with numerical values of 4, 3, 2 and 1. The instrument was validated by three experts, two from Technology and Vocational Education Department and one from Measurement and Evaluation unit of Mathematics and Computer Education Department, all from Enugu State University of Science and Technology, Enugu. Their corrections and suggestions of the experts after the validation were used to produce the final instrument used for the study. Cronbach Alpha was used to determine the reliability coefficient of the eight sections of the instrument and they ranged from .76 to .82 while the reliability coefficient of the whole instrument gave a value of .76. This .83 coefficient is in-line with Uzoagulu (2011) that reliability index of 0.60 to 1 shows that the instrument is highly reliable.

Two research assistants were used in the administration of the questionnaire and out of 473 copies of the questionnaire distributed 449 copies were properly filled, returned and used for data analysis, thus representing 94.93% return rate. Mean with standard deviation was used to answer the research questions and Analysis of Variance (ANOVA) was used to test the null hypotheses at .05 level of significance at 446 degree of freedom. Decisions on the research questions were made using the lower and upper limits of the mean based on a four-point rating scale. The standard deviation was used to determine the homogeneity or otherwise of the opinions of the respondents. The t-test was used to test the null hypotheses. The analysis was carried out using Statistical Packages Social Science (SPSS). The significant value (at 2-tail) was compared with .05 level of significant at the appropriate degree of freedom. The null hypotheses were significant where the probability value was less than the .05 significant level at appropriate degree of freedom, otherwise the null hypothesis was not significant.

RESULTS

The results of the study are presented according to the research questions and hypothesis that guided the study.

Research Question 1

What are the manuring competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria?

Table 1: Mean Scores with Standard Deviation of the respondents on the manuring competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria

S/N	manuring competencies required for effective management of floriculture farm by agricultural education students includes ability to;	Extension Workers N=252		Lecturers N=30		Florist N= 167		Overall N = 449		Decision
		$\overline{X}_1$	SD_1	$\overline{X}_2$	SD_2	$\overline{X}_3$	SD_3	$\overline{X}_G$	SD_G	
1	use of appropriate inorganic fertilizer like NPK, Ammonia etc	3.06	0.67	2.83	0.65	3.05	0.66	3.04	0.67	HR
2	adopt a method of applying the fertilizer like spraying, ringing among others	3.13	0.64	3.00	0.59	3.12	0.64	3.12	0.64	HR
3	apply organic manure during planting	3.11	0.66	2.90	0.61	3.11	0.67	3.09	0.66	HR
4	prepare compost manure to improve the soil nutrients before the planting	3.21	0.64	3.17	0.59	3.19	0.63	3.20	0.64	HR
5	apply manure a day after transplanting	3.05	0.63	2.97	0.61	3.06	0.63	3.05	0.63	HR
6	apply inorganic fertilizer in mixture such as rose mix	2.99	0.59	2.77	0.63	3.04	0.58	2.99	0.60	HR
7	adopt basal application of farm yard manure	3.07	0.60	2.90	0.66	3.11	0.61	3.07	0.61	HR
8	add organic manure during the pruning time	3.17	0.58	3.07	0.64	3.21	0.59	3.18	0.59	HR
9	cover the fertilizer lightly with earth	3.47	0.50	3.47	0.51	3.48	0.50	3.47	0.50	HR
10	apply the quantity measured 5cm away from each stand for band placement method	3.09	0.66	2.97	0.72	3.14	0.67	3.10	0.67	HR
	Cluster Mean/SD	**3.14**	**0.62**	**3.01**	**0.62**	**3.15**	**0.62**	**3.13**	**0.62**	**HR**

NOTE: X = Mean; SD = Standard Deviation; HR = Highly Required

The analysis of data presented in Table 1 shows items 10 have overall mean rating ranged from 2.99 to 3.47 showing highly required. This means that the respondents viewed the items as highly required. The implication is that the items are the manuring competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria. The overall cluster mean of 3.13 further indicates that the items are the manuring competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria. The low standard deviation of .62 indicates that the respondents have similar opinion to the items.

Research Question 2

What are the weeding competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria?

Table 2: Mean Scores with Standard Deviation of the respondents on the wedding competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria

S/N	wedding competencies required for effective management of floriculture farm by agricultural education students includes ability to;	Extension Workers N=252 $\overline{X}_1$	SD_1	Lecturers N=30 $\overline{X}_2$	SD_2	Florist N= 167 $\overline{X}_3$	SD_3	Overall N = 449 $\overline{X}_G$	SD_G	Decision
11	remove the weak flowers from the healthy once	2.99	0.59	2.97	0.61	3.02	0.59	3.00	0.59	HR
12	use herbicide to use to control weed (contact non selective herbicide, long lasting systematic and total herbicide)	3.40	0.49	3.30	0.47	3.41	0.49	3.40	0.49	HR
13	use a knapsack herbicide sprayer	2.96	0.69	2.80	0.71	3.02	0.69	2.97	0.69	HR
14	apply herbicide on weed two or three months after planting flowers.	3.01	0.65	2.93	0.58	3.07	0.67	3.02	0.65	HR
15	repeat the application after four months of first application	2.96	0.65	2.87	0.57	3.01	0.66	2.97	0.65	HR
16	measure herbicide correctly and dilute with water before the application like 1:5 cubic cup of herbicide and water	3.01	0.65	2.93	0.58	3.06	0.67	3.02	0.65	HR
17	weed with hoe	2.97	0.60	2.97	0.56	2.99	0.64	2.98	0.61	HR
18	use hand picking or pulling of weeds method	2.95	0.65	2.97	0.61	2.99	0.67	2.98	0.65	HR
19	use brushing or slashing with cutlasses method	2.99	0.59	2.87	0.51	3.04	0.61	3.00	0.59	HR
20	drive herbivores animal into flowers to feed on weeds leaving the flowers	2.92	0.60	2.80	0.55	2.95	0.63	2.92	0.61	HR
21	plant leguminous cover crop such as centrosema, pueraria and calopogonium to control weeds	3.01	0.65	2.73	0.58	3.08	0.67	3.02	0.65	HR
	Cluster Mean/SD	**3.02**	**0.62**	**3.92**	**0.58**	**3.06**	**0.64**	**3.03**	**0.63**	**HR**

NOTE: X = Mean; SD = Standard Deviation; HR = Highly Required

The analysis of data presented in Table 2 shows items 11 have mean ratings ranged from 2.92 to 3.40 showing highly required. This means that the respondents viewed the items as highly required. The implication is that the items are the wedding competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria. The overall cluster mean of 3.03 further indicates that the items are the wedding competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria. The low standard deviation of .63 indicates that the respondents did not differ remarkably in their opinion to the items.

Research Question 3

What are the pruning competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria?

Table 3: Mean Scores with Standard Deviation of the respondents on the pruning management competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria

S/N	Pruning competencies required for effective management of floriculture farm by agricultural education students includes ability to;	Extension Workers N=252 $\overline{X}_1$	SD_1	Lecturers N=30 $\overline{X}_2$	SD_2	Florist N= 167 $\overline{X}_3$	SD_3	Overall N = 449 $\overline{X}_G$	SD_G	Decision
22	use knife in pruning the flower plants	2.96	0.65	2.77	0.57	3.04	0.66	2.97	0.65	HR
23	utilize mechanize cutting machines in pruning	3.47	0.50	3.50	0.51	3.47	0.50	3.47	0.50	HR
24	promote the adoption of robotic pruning approaches	2.98	0.67	2.73	0.58	3.06	0.68	3.00	0.67	HR
25	identify flower sucker, shoots and leaves to be pruned	2.93	0.67	2.70	0.60	3.01	0.68	2.95	0.66	HR
26	carry out pruning to provide even spacing of the flower	2.88	0.73	2.70	0.60	2.95	0.76	2.90	0.73	HR
27	initiate a creative features on the floral during the pruning exercise	3.58	0.54	3.43	0.63	3.58	0.54	3.57	0.55	VHR
28	identify flowers that require pruning and otherwise	2.92	0.68	2.77	0.63	2.95	0.69	2.91	0.68	HR
29	determine the time according to weather condition for flower plant pruning.	3.01	0.72	2.97	0.72	3.05	0.73	3.02	0.72	HR
	Cluster Mean/SD	**3.09**	**0.65**	**2.95**	**0.61**	**3.14**	**0.66**	**3.05**	**0.65**	**HR**

NOTE: X = Mean; SD = Standard Deviation; VHR = Very Highly Required; HR = Highly Required

The analysis of data presented in Table 3 shows items 27 have mean rating of 3.57 indicating very highly required. While the remaining items mean scores ranged from 2.91 to 3.47 showing highly required. This means that the respondents viewed the items as highly required. The implication is that the items are the pruning competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria. The overall cluster mean of 3.05 further indicates that the items are the pruning competencies required for effective management of floriculture farm by agricultural education students of universities for job creation in South East of Nigeria. The low standard deviation of .65 indicates that the respondents have similar opinion to the items.

Hypothesis 1

A significant difference does not exist among the mean scores of extension workers, Agricultural Education Lecturers and florists on the field management competencies (manuring, wedding and pruning competencies) required for effective management of floriculture by farm agricultural education students of universities for job creation in South East of Nigeria.

Table 4: Summary of One-way ANOVA on the mean scores of extension workers, Agricultural Education Lecturers and florists on the field management competencies (manuring, wedding and pruning competencies) required for effective management of floriculture by farm agricultural education students of universities for job creation in South East of Nigeria.

Extension workers, Agricultural Education Lecturers and florists	Sum of Squares	df	Mean Squares	F	Sig	Decision
Between Groups	550.854	2	275.427	3.806	.063	NS
Within Groups	32275.547	446	72.367			
Total	32826.401	448				

NS= Not Significant; p= 0.05

The result of item by item analysis of variance (ANOVA) in Table 4 shows that the f values is 3.806 at .05 level of significant and degree of freedom between group 2 and within group 446 with significant value of .063. Since the significant values of .063 obtained is more than the .05 level of significant the null hypothesis for the items is not significant. This means that there is no significant difference regarding the items on the mean scores of extension workers, Agricultural Education Lecturers and florists on the field management competencies (manuring, wedding and pruning competencies) required for effective management of floriculture by farm agricultural education students of universities for job creation in South East of Nigeria.

DISCUSSION OF FINDINGS

The data collected on research question one depicted the manuring competencies required for effective management of floriculture farm by agricultural education students of universities for job creation. The findings showed that manuring competencies highly required for effective management of floriculture farm by agricultural education students for job creation in manuring competencies includes ability to; use of appropriate inorganic fertilizer like NPK, Ammonia etc, adopt a method of applying the fertilizer like spraying, ringing among others, apply organic manure during planting, prepare compost manure to improve the soil nutrients before the planting, apply manure a day after transplanting, apply inorganic fertilizer in mixture such as rose mix, adopt basal application of farm yard manure, add organic manure during the pruning time, cover the fertilizer lightly with earth, apply the quantity measured 5cm away from each stand for band placement.

Further, the findings of the study revealed that the in wedding competencies required includes remove the weak flowers from the healthy once, use herbicide to use to control weed (contact non selective herbicide, long lasting systematic and total herbicide), use a knapsack herbicide sprayer, apply herbicide on weed two or three months after planting flowers, repeat the application after four months of first application, measure herbicide correctly and dilute with water before the application like 1:5 cubic cup of herbicide and water, weed with hoe, use hand picking or pulling of weeds method, use brushing or slashing with cutlasses method. The pruning competencies required includes ability to use knife in pruning the flower plants, utilize mechanize cutting machines in pruning, promote the adoption of robotic pruning approaches, identify flower sucker, shoots and leaves to be pruned, carry out pruning to provide even spacing of the flower, initiate a creative features on the floral during the pruning exercise, identify flowers that require pruning and otherwise. The findings of the study were supported by Ndubizu (2013) that filed management operating and activities in fertilizer application, weed control, diseases and pest control need to be acquired be the farmers for effective farm management. In line with the above, Ibezim (2014) pointed that field management operations are very important for increasing productivity in farming operation.

Moreover, the findings of the study revealed that there was no significant difference on the mean scores of extension workers, Agricultural Education Lecturers and florists on the field management competencies required for effective management of floriculture by farm agricultural education students of universities for job creation in South East of Nigeria. The implication of the finding was that the status of farmers and agricultural extension workers had no significant influence on the identified field management competencies required for effective management of floriculture by farm agricultural education students of universities for job creation in South East of Nigeria.

CONCLUSION

Based on the findings of the study, the conclusions were made that the identified competencies may be used to improving the teaching-learning process and competency development among the students in universities. The adoption and teaching of the identified competencies will equip agricultural education students to be competent in flower production on graduation. Also, the identified competencies will enable the agriculture education students to teach their students more confidently especially after attending workshops/seminars in this area.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made;

1. University administration should map out demonstration farms where the students will put into practices the identified field management competencies by the students before graduation.
2. Skill acquisition centers should adopt the identified competencies in retraining farmers and youths who are interested in management of floriculture farm.
3. The agricultural extension workers should utilize the identified competencies in their extension services to the young floriculturist.

REFERENCES

Aneke, C.U. (2014). Strategies for enhancing students Enrolment in Agricultural education in Universities in South-East of Nigeria. *Unpublished Ph.D Thesis* Department of Technology and Vocational Education, Enugu State University of Science and Technology, Enugu.

Baliyan, S. P. (2012). Constraints in the growth of horticulture sector in Botswana. *Journal of Social and Economic Policy, 9(1), 1-15.*

Ibezim N. E. (2013). Knowledge and skills in animal production needed by senior secondary school agricultural science student in Cross River State. *International Journal of Science and Entrepreneurship Research 3(1):*1-4.

Mbah, C. O. & Onoh, B. C.E.C. (2016). Utilization of Franchising Business Strategies by Small Scale Business Entrepreneurs in Enugu State. *International Technology Research Journal (INTERJ) 4* (1), 177-188.

Mbah, C.O. (2012). Technical competencies needed by mechanical students in technical colleges for employment in Enugu State. *Unpublished B.Sc Project Report.* Presented to the Department of Technology and Vocational Education, Faculty of Education ESUT.

Ndubizu, T.O.C. (2014). *Plantain production manual for Nigerian Growers*. Imo state college of Agriculture, Amuagwo Technical bulletin 1.

Nworgu, B.G. (2015). *Educational Research; Basic issues and methodology*. Nsukka; University Trust Publishers.

Okeke, C. E. (2011). *Horticulture Farming in Africa*. Onitsha: Macmillan Publishers.

Okeke, I. P. (2018). Improving sustainable floriculture production and income through net shading: a case study of Awka. *Journal of Agriculture and Sustainability, 5(1), 70-103.*

Okeke, O. C. (2017). Economic evaluation of usage of farmers' productivity enhancing practices in the Nigerian Northern Savannah. *An unpublished M.Sc. Thesis* submitted to the Department of Agricultural Economics and Rural Sociology, ABU, Zaria;

Onoh, B. C. E. C. (2011). *Fundamentals of entrepreneurship studies*. Enugu; Cheston Agency Press ltd.

Orikpe, E.A. (2014). Planned repetition. In Okafor, E.N. & Assimonye A.C. (Eds) *Principles and practices of micro teaching and teaching practice* (97-102) Umunze. Annyco publishers.

Smith, E. V. (2013). Flowers and gardens on the context and tourism potentials. International *Journal of Heritage Studies 18(4)* 375-392.

Udeke, S. O. (2014). Entrepreneurship development in floriculture for sustainable development in Nigeria. Journal of Research in Agriculture and Rural Development 5(2) 17-27.

Uzoagulu, A.E. (2013). *Practical Guide to Writing Research Report in Tertiary Institutions.* Enugu; John Jacobs Classic Publishers Ltd.