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Professional Skills Needed by Secondary School Graduate in Groundnut Production

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Abstract

Groundnut production is one of the most farming business in Kogi State, because of its economic value which includes; rich in protein and essential fatty acid, serves as cash and food crop, provision of nutritive bio-mass in form of green folder which can be use as livestock feeds, it serves as source of oil for industries and domestic use and the manufacturing of margarine and lubricant, many farmers and students embark on groundnut production because of this economic benefits. Due to this importance, groundnut is one of the crops taught to students in Secondary School as agricultural Science subject. Agricultural science is to impact necessary skills to the students to enable them enter into groundnut production after their graduation. That is while the study was carried out to identify the professional skills required by secondary school graduate in groundnut production. The study adopted survey research design and the population for the study was one hundred and fifty (150) agricultural teachers and farmers. one hundred (100) items structured questionnaire develop from the literature reviewed was used to collect data from the respondents. The data was analyze using weighted mean and standard deviation. The findings of the study revealed that 44 items are skills required by Secondary School Graduate in groundnut production in the study area. The study recommended that the identify skills should be acquiring by the teachers of agriculture, and Government should provide skills acquisition centre for training secondary school graduates, to make them competent in groundnut production and self-employed.

KEYWORD: Professional, Skills, Graduate, Groundnut production.

Introduction

Groundnut is dicotyledonous plant that belongs to the family legumenoceae and genus Arachis hypogeal. Groundnut, also known as the peanut, is a legume crop grown mainly for its edible seed. It is widely grown in the subtropics, being important to both small and large commercial producers. It is classified as both legume and an oil crop, due to its high content of oil (Shuaibu et al. 2022).

Groundnut is a low growing annual crop having a central upright stem with green leaves. Iwena (2020) stated that crop produces flower which are mostly found at the base of the stem either singly or in group. These flowers later develop into indehiscent fruits or pods that are elongated and each pod contains one to four seeds depending on the varieties. The root system is made of many lateral roots which tend to increase with soil depth. The crop has many varieties which were outline by Ogieve (2019) to include bunchy or erect, spread or creeping. Kano local or kano 50 types among others. With reference to it origin, Walton and Holt (2020) stated that groundnut really originated from South America especially Brazil.

There are many advantages derived from the crop. Groundnut or peanut is very rich in protein and essential fatty acid for smooth physiological function of the body. Damisa and yohana (2022) cited that, groundnut is an important crop in many countries, where it is a good source of protein, cooking oil and vitamins. The haulms are a good source of feed for livestock, especially during the dry season when fresh green grasses are not available. This serves as an additional source of income for farmers in the dry season when the fodder is in high demand. Groundnut improves soil fertility through nitrogen fixation. Gilbirth 2020) supported the opinion of Damasa and yohanna outline the economic importance of groundnut as follows;

i. Groundnut serves as both cash and food crop because of its protein nutritive content.

ii. It provides a very nutritive bio-mass in form of green folder which can be used as livestock feeds

iii. It is used in the manufacturing of margarine and lubricant

iv. Groundnut is a source of oil for industrial and domestic uses.

v. Salted and boiled groundnut has been a source of income for many retailers.

Due to the importance attached to groundnut it is one of the crops taught to students in Secondary School as Agricultural Science subject. Secondary school is an institution for young people between the age of 11 and 16 or 18. This age bracket individual is eager to learn so that at later age they can utilize the acquired competencies in life (Nnaji et al 2022). One of the objective of teaching Agriculture science is to impact competencies to the students which enable them to engage in occupations for better living in the society. For this aim to be achieved Agricultural Science teacher needed a practical skill to impact to the student to acquired competency skills to become self-reliance after graduation. Offering Agricultural science in Senior Secondary schools enables student to undergo training in the acquisition of competencies that can assist them to take up position in different areas of crops or animals production. It is therefore expected that a graduate from secondary School who has been trained in Agricultural science should possess the required skills in any of the crops grown in the area Mohammed et al. (2021).

Professional Skills according to Osimen and Nwoji (2015) refer to the ability to perform a task expertly. It is that expertness or practiced ability displaced in the performance of a task. (Nnaji et al 2022) defined skill as capacity or competent to do things well. He pointed out that one of the skills that a secondary school student required is entry level skills. Entry level skills in the view of the authors is those skills that the students acquired to enable them enter into occupation. Osimen (2015) supported that the acquired skills which can also be referred to as occupation skill can help an individual in an employment in different category of occupation. Skills required in groundnut production are in the area of planning, pre-planting, planting and post planting operations and marketing. Gadama et al. (2021) pointed out that the skills required in groundnut production are mostly in land clearing. Seed bed preparation, method of planting, harvesting, marketing and storage. Ogieve (2019) stated that groundnut is planted when land is cleared and refuse burnt and the beds prepared. He further advised that the length of the seed beds, the spacing, seed rate and planting date should be carefully carried out based on specification. He further maintained that wedding, manure application, control of pest and diseases using appropriate chemical, harvesting using appropriate tools, storage and marketing. Olaitan and Mama (2015) stated that if the appropriate skills are acquired by the secondary school students, it will help them to enter into crop production. While Anarah et al.(2023) referred production as the creation of utilities by using all the factors of production. They further said that production is the

creation of wealth in the form of goods and services that will that will meet human need. Anjikwu et al.(2021) view production as the method of growing food, goods and services in large quantities. It means that if the skills in raising a given crop like groundnut are identified and taught by the teacher, youth who are mostly secondary school graduates equipped with such skills, will be engage in the production of such crop hence they study.

Statement of Problems

Educational system has failed for graduating youths yearly without acquired practical job skills. This according to Adebayo and Amao (2023) results in mass unemployment among school leavers and it is traceable to the ineffectiveness of teachers as a result of lack of skills imparted to the students. Rasaki (2017) maintained that only a practical oriented education and skill training programme geared toward self-employment could make the school leavers productive. Agricultural science which should be a practical oriented course is a victim of theoretical oriented programme, as a result groundnut production has been grossly affected which negatively reduce the yield. Iwena (2020) wrote extensively on importance of groundnut production but the necessary skills to embark on massive production is lacking, because of that. groundnut production is done on peasant or subsistence level in Benue South. Therefore, this has motivated the researcher to embark on this research work. on Skills Required and Groundnut production among secondary school graduates for groundnut enterprise.

Purpose of the study

The General Purpose of this study is to identify the Professional skills needed by secondary School graduate in groundnut production in Ankpa LGA of Kogi State. Therefore, the study was specifically to;

1. Identify the professional skills in Pre- planting operation in groundnut production in Ankpa LGA
2. Assess the professional skills in Planting operation in groundnut production in Ankpa LGA
3. Examine the professional skills in Post planting in groundnut production in Ankpa LGA

Research Question

The following research questions are formulated to guide the study.

1. What are the professional skills in pre-planting operation for groundnut production?
2. What are the professional skills in planting operation for groundnut production?
3. What are the professional skills in post-planting operation for groundnut production

Methodology

This study adopted a survey research design. The study was carried out in Ankpa LGA of Kogi State. The study is important in this area because it is an agricultural production zone with high potential for engaging the secondary school graduates to possess the skills in groundnut production. The population of the study was one hundred and fifty (150) teachers and farmers in Ankpa Local Government Areas of Kogi State.

The instrument for data collection is a structured questionnaire and that was developed from the literature reviewed of the study that the respondent is required to respond to. The items were divided into two section. Section one will be design to obtain personal data of the respondents. In which they are required to check the appropriate boxes provided for the response. The second part was designed to give information that will provide answers to research questions of the study. The section two further sub-divided into three parts A, B, and C. Section A. was design to find out the professional skills needed by Secondary School Graduate in pre-planting operation for groundnut production. Section C was design to know the professional skills needed by Secondary School Graduate in planting operation for groundnut production. Section D was design to know the professional skills needed by Secondary School Graduate in post-planting operations for groundnut production. Each questionnaire items had a four (4) response options with the real limit as follows.

Highly required	(HR)	3.50 – 4.49
Averagely required	(AR)	2.50 – 3. 49
Slightly required	(SR)	1.50- 2.49
Not required	(NR)	0.50 – 1.49

The data Was analyzed using mean and standard deviation to answer the data research questions. Any item with a mean value of 1.50 or above will be considered as required to the item, while item with a

mean value below 1.50 will be regarded as not required to the items. The standard deviation will be used to determine the closeness or otherwise of the responses of the respondents to the mean. Any item with a standard deviation of 1.96 or below indicate that the respondents are close to the mean and to one another in their responses, while any item with a standard deviation above 1.96 indicate that the respondents are not close to the mean or to one another in their responses.

Results

Research Question 1: What are the professional skills needed by teacher in teaching pre-planting operations in groundnut production?

Table 1: The mean ratings of respondents on the professional skills needed by Secondary School Graduate in pre-planting operations for groundnut production.

S/N	ITEMS STATEMENT	X	SD	REMARK
1	Select appropriate site for growing groundnut	3.27	1.90	AR
2	Select sandy soil	2.19	1.04	AR
3	Clear the grasses and trim trees using cutlass	3.01	0.99	AR
4	Rake the grasses to the corner of the site	2.47	1.05	AR
5	Burn the raked grasses	2.62	1.00	AR
6	Remove the stumps from the soil using axe	2.40	1.13	AR
7	Till the soil by turning it using hoe	2.84	1.21	AR
8	Break the clods using plough	2.41	1,09	AR
9	Sort by dragging roots and stones out of the ground	2.77	0.98	AR
10	Make ridges by collecting and inverting the soil in continuous line using hoe.	3.55	1.43	HR
11	Create space 60cm between the ridges or rows	2.25	1.0	SR

Table 1. showed that 1 out of 11 items had mean values of 3.55 which was within the real limit of 3.50-4.49. This indicated that the item was highly needed by Secondary School Graduate in pre-planting operation for groundnut production. However,6 out of 11 had their mean value between 2.62-3.27 which were within the real limit of 2.50-3.49. This means they were averagely needed in pre-planting operation for groundnut production. The remaining four items had their mean values ranged from 2.25-2.47, these values were within the real limit of 1.50-2.49, indicating that these items were slightly needed in pre-planting operations for groundnut production.

Generally, all items had their mean values ranging from 2.25-3.55, indicating that all the 11 items were required in pre-planting operation for groundnut production by the Secondary School graduates in the study areas.

The standard deviation of all the 11 items in table 2 had their values ranged from 0.99-1.0. These values were below 1.96, indicating that the respondents were close to mean or one another in their responses.

Research question 2: What are the professional skills needed by Secondary School Graduate in planting operation for groundnut production?

Table 2: Mean rating of the respondents on the professional skills needed by Secondary School Graduate in planting operation for groundnut production.

S/N	ITEM STATEMENT	X	SD	Remark
1	Choose the appropriate season for growing groundnut	2.61	1.05	AR
2	Select healthy seeds	3.65	0.5	HR
3	Spray the seeds with fungicide	2.55	0.96	AR
4	Sow the seeds with legs or planter	2.65	0.74	AR
5	Drop 0ne to two seeds in each hole	3.69	0.32	HR
6	Sow the seed at a space of 25cm between plant	2.60	I.53	AR
7	Sow at the depth of 5cm	2.63	2.01	AR
8	Cover the sown seeds with soil	3.95	1.93	HR

Table 2 showed that 3 out of 8 items had their mean values between 3.65-4.49. These values were within the real limit of 3.50-4.49, indicating that the items were highly needed in planting operation for groundnut productions. However, five out of eight items had their mean values of between 2.55 -2.65 which were within the real limit of 2.50-3.49. This means that the items were averagely needed in planting operations for groundnut production by Agricultural Science graduate in the study area.

Generally, all the 8 items had the mean values ranged from 2.55- 3.95, indicating that all the items were needed in planting operations for groundnut production. The standard deviation of 7 items had their values range from 0.99-1.95. These values were below 1.96, indicating that the respondents were close to the mean or one another in their responses. The remaining item had a standard deviation of 2.01, this

value was above 1.96, indicating that, the respondents were not close to the mean or one another in their responses with reference to the item.

Research Question 3: What are the professional skills needed by Secondary School Graduate in post-planting operation for groundnut production?

Table 3: Mean ratings of the respondents on the professional skills needed by Secondary School Graduate in post- planting operation for groundnut production.

S/N	Item Statement	X	SD	REMARK
1	Thin seedlings when necessary	2.50	0.35	SR
2	Supply seeds to un-germinated spaces	2.49	0.79	SR
3	Apply manure using side placement method	3.05	1.42	AR
4	Remove weeds using hoe or herbicide	2.62	0.98	AR
5	Kill pests using appropriate chemical	2.89	1.58	AR
6	Uproot and burn infested plant	2.95	0.25	AR
7	Spray disease plant with appropriate chemical	2.82	1.53	AR
8	Harvest groundnut 4-5 months after planting	3.37	1.00	AR
9	Pull groundnut out of the soil by hand when the soil is soft	3.95	1.45	HR
10	Remove the pods from the soil using hoe	2.88	0.89	AR
11	Pack all the uprooted stems in a corner	2.65	1.05	AR
12	Detach the pod from stem one by one	3.51	0.97	HR
13	Dry the pod under the sun on the floor	2.78	1.50	AR
14	Spray with Actellic dust before storage	2.65	1.06	AR
15	Store shelled groundnut in a jute	3.50	1.12	HR
16	Store unshelled groundnut in a bag	3.57	1.00	HR

Table 3 showed that 3 out of 16 items had their mean values between 3.51-3.95 which were within the real limit of 3.5-4.49. This indicated that, the items were highly required in post planting operations for groundnut production. Moreso,10 out of 16 items had their mean values between 2.45-3.37 which were

within the real limit of 2.50-3.49 which showed that the items were averagely required in post –planting operation for groundnut operation. The remaining 3 items had their mean values between 2.25-2.49 which were in the real limit of 1.50- 2.49. This indicated that, the items were slightly required in post planting operations in groundnut production.

Generally, all the 16 items had their mean values ranged from 2.56-3.95, indicating that all the items in table three were required in post planting operation for groundnut production in the study areas. The standard deviation of 16 items had their values range from o.35-1.58. these values were below 1.96, this means that the respondents were close to the mean or one another in their responses.

Discussion of the findings

Based on data analysis and presentation, it was found out from the study that secondary school graduates in Kogi state Required the following skills in Groundnut production.

1. Eleven skills in pre-planting operation
2. Eight skills in planting operation
3. Sixteen skills in post –planting operation

The result from this study will provide insight into the skills that the graduates of Secondary School needed to acquire in groundnut production for entry into groundnut enterprise. These skills will help them to become self-employed in Kogi State. The study will be of a great benefit to the teachers of agricultural science because, the teacher can use the work to teach the students the skills while in the school. The ministry of agriculture and farmers can also benefit from the study because, by using this work through their agencies like agricultural development project ADP and extension workers to enlighten or educating the rural farmers and unemployed youths on the skills needed in groundnut production for entry into groundnut enterprise, that will encourage large scale in groundnut production The study will be benefit to the researcher because it contribute to expanding literature and discussions on groundnut production.

Conclusion

It is in the view of Kogi State to provide jobs to the graduate or secondary school leavers by improving the practical aspect of the agricultural Science programme in Secondary school. Therefore, the teaching of groundnut production as an areas of agricultural Science should be encouraged by the local, State and Federal Government.

However, from the findings of the study, it was observed that to embark on groundnut production, the secondary school graduates required to possess certain skills that would enable them to effectively plan, and produce groundnut. The need for acquisition of these skills cannot be overemphasized, as it will reduce the unemployment.

Recommendations

The findings of the study warrant the following recommendations;

1. Government should be sensitized on the need to employ on a qualified teachers with requisite skills required to teach Agricultural Science in Secondary schools and to ensure adequate facilities are provided in teachers training center .
2. Teachers should be endeavor to acquire these skills to be effectives both in class room and on the field.

3. Administrator of Secondary schools should ensure that the teachers of agricultural science should go for refresher courses, industrial attachment seminar, workshop to update their knowledge

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